# Snohomish County Medical Examiner

## Emergency / Disaster

## Policies and Procedures

**This manual contains Emergency / Disaster policies and procedures of the Medical Examiner's Office and supersedes all previous information relating to:**
**Emergency / Disaster Policies and Procedure**

**This Manual shall be effective on April 13, 2011 and will remain in effect until suspended by written directive.**

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# SECTION 1.0
# Facility Emergency Preparedness

## 1.1 Purpose

It is the policy of the Medical Examiner's Office to provide a formal set of procedures by which the employees of the Medical Examiner's Office at 9509 29th Ave. West, Everett can effectively and efficiently cope with the effects of an emergency event affecting their operations. This Emergency Preparedness Plan shall be reviewed annually by the Safety Committee and the Department Head and revised as appropriate. A copy of the plan shall be sent to the Safety Office. This document shall serve as Attachment A to Basic Plan, Snohomish County Government Facility Emergency Preparedness Plan and Office of the Medical Examiner.

## 1. 2 Designated Personnel

A. The Safety Committee members for the Office of Medical Examiner have been designated to assist with the execution of the Facility Emergency Preparedness Plan.

B. The following job titles or positions have been identified as performing critical operations and may be required to remain at their workstation or assigned to another work area after the initial order to evacuate:

1. Chief Medical Examiner
   a. Commands supervision for the entire MEO operation.
   b. Meets with key personnel regarding operations problems and status
   c. If mass fatality, may serve as member of Mass Fatality Response team.
2. Associate Medical Examiner
   a. In absence of Chief Medical Examiner, commands supervision for the entire MEO operation.
   b. May meet with key personnel regarding operations problems and status
   c. If mass fatality, may serve as member of Mass Fatality Response team.
   d. Keep Chief Medical Examiner informed of status of operations
3. Chief Medical Investigator
   a. If mass fatality, serves as member of Mass Fatality Response team.

b. Keep Chief Medical Examiner informed of status of operations

4. Deputy Director
   a. Responsible for release of information to the public and news media concerning MEO operations
   b. Coordinates with Chief Medical Examiner and/or Chief Medical Investigator concerning all press releases.

C. The following records and equipment have been identified as being vital for the continued operation and continuity of Snohomish County government:

1. Case files in front office
2. Case files in Records Room
3. Cash drawer
4. Electronic records
5. Digital image records
6. Tissue samples
7. Two transport trucks

D. The following employees have been designated to assist in the execution of the Facility Emergency Preparedness Plan by securing and/or removing sensitive or essential materials and equipment during the emergency event:

1. Each employee is responsible for saving and securing active electronic documents.
2. The senior on-duty Medical Investigator (or on-duty Medical Investigator) shall:
   a. Forward telephone main line.
   b. Sweep back office areas to ensure that all persons in these areas are alerted and evacuated (or shelter-in-place).
   c. Remove transport vehicle from garage, close garage door, and transport to designated assembly area.
3. The senior Pathology Assistant (or on-duty Pathology Assistant) shall:
   a. Sweep pathology areas to ensure that all persons in the facility are alerted and evacuated (or shelter-in-place).
   b. Secure electronic records, digital image records, and automated systems.
   c. Secure and lock tissue sample room.
4. The Accounting Technician II (or the Deputy Director)) shall:
   a. Secure the cash drawer
   b. Collect and carry out the employee list and visitor log-in book.
   c. Serve as Runner as needed.

d. Lock the payroll records cabinet and ensure that all office visitors are evacuated.

5. Associate Medical Examiner (or Deputy Director) shall:
   a. Sweep pathology offices, lunch room and records room.
   b. Lock records room.
   c. Turn off coffee makers.
   d. Back-up for Deputy Director.
6. The Deputy Director (or Associate Medical Examiner) shall:
   a. Secure and lock access to confidential administration files.
   b. Collect and carry out personnel and emergency contact information.
   c. Sweep office areas and office area restrooms to ensure that all persons in these areas are alerted and evacuated (or shelter-in-place).
   d. Collect and carry out a first aid kit.
   e. Back-up Associate Medical Examiner.
7. The Master Medical Investigator (or Chief Medical Examiner) shall:
   a. Collect and carry out case log book, employee log-in/log-out book, morgue log book, body release papers and Inventory log.
   b. Remove transport vehicle from garage and transport to designated assembly area.
   c. Back-up for Chief Medical Investigator.
8. The Chief Medical Investigator (or Master Medical Investigator) shall:
   a. Collect and carry out the 800 MHz radios.
   b. Ensure that all garage and observation area visitors are evacuated.
   c. Confirm that the vehicles have been removed from garage, closed garage door, and transported to designated assembly area. Remove the second vehicle if it has not been removed.
   d. Confirm that the water main value is in open position.
   e. Back-up for Master Medical Investigator.

## 1.3 Reporting Sequence

The occurrence of a natural, man-made, accidental or intentional emergency event affecting the operations of the Medical Examiner's Office shall be reported by any employee in the following sequence:

1. Call 911. Remain on the line until all necessary information has been given. Follow instructions given by 911. Note: in the event of a community wide disaster such as an earthquake, start with step 2.
2. Inform your immediate Supervisor or the Chief Medical Examiner who will:
   a. Inform Executive Office at 425-388-3460.

b. Inform the Safety & Health Officer at 425-388-3413 or 425-754-4512 (cellular)
c. Provide updates to Facilities Management 425-388-3347

## 1.4 Emergency Event Procedures

A. Each emergency event will have unique circumstances that require employees to exercise good judgment when performing emergency actions. Emergency actions are intended to protect both life and property, however protection of life is always first priority.

1. In event of a disaster, each employee's first duty is for his or her own safety and to avoid injury. They should avoid harmful or dangerous situations, see to the needs of their family, and report their status and availability to their supervisor in as timely a way as possible.
2. Management will develop and annually update a list of home and cell phone/pager numbers for all SCMEO staff and assure that each staff member has this information. This will facilitate communications in the event of a disaster during off-duty hours. Managers will assure that contact lists for their staff contain the 24-hour SCMEO emergency phone number and brief procedures for calling in after a disaster. All staff will annually review and update their personal emergency contact information and insure that their manager has this information.
3. All staff will keep their SCMEO identification card accessible to be able to show SCMEO employee status as needed following a disaster.

B. The following procedures are intended to clarify the actions to be taken if an emergency event should occur.

1. Earthquake. When the ground starts to shake, "DROP, COVER and HOLD."

a. In the event of an earthquake, the following steps will be initiated immediately:
   i. Indoors: When you feel an earthquake, DROP and COVER under a desk or sturdy table. Stay away from windows, bookcases, file cabinets, heavy mirrors, hanging plants and other objects that could fall. HOLD onto the desk or table. If it moves, move with it. Do not run – stay where you are and "Drop, Cover and Hold."

ii. Outdoors: If you are outdoors, move to a clear area, away from trees, signs, buildings, or downed electrical wires and poles.
iii. Wheelchair: If you are in a wheelchair, stay in it. Move to safe cover if possible (this is the one time you might use a doorway), lock your wheels, and protect your head with your arms.
iv. Downtown Area: If you are on a sidewalk near a tall building, get into a building's doorway or into the building's lobby to protect yourself from falling bricks, glass and other debris.
v. Driving: If you are driving, slowly pull over to the side of the road and stop. Avoid overpasses, power lines and other hazards. Stay inside the vehicle until the shaking stops.

b. After the earthquake:
i. Check yourself and those around you for injuries. Be prepared for aftershocks.
ii. If you smell gas or hear a hissing sound – open a window or leave the building. Shut off the main gas valve outside using a non-sparking wrench.
iii. Use the phone only to report a life-threatening emergency, to report effects on the facility as directed in Section III. REPORTING SEQUENCE, and to make contact with your pre-established out-of-state family contact. Continue to monitor your radio.

2. Bomb Threat.
In the event of a bomb threat, the following steps will be initiated immediately:

a. All bomb threats should be taken seriously and handled as though an explosive were in the building.
b. If you receive a bomb threat, remain calm and keep the caller on the line as long as possible. Ask the caller to repeat the message and record every word.
c. Ask the following questions:
- Where is the bomb?
- When is it going to go off?
- What kind of bomb is it?
- What will cause the bomb to explode?
- Why did you place the bomb?
- What is your name?
- Where do you live?

d. Take good notes when talking to the person on the phone. Be aware of background noise, special voice characteristics, music, office machinery, etc.

e. Get a co-worker to call building security for you while you are on the phone. Have a plan as to how you are going to alert your co-worker. A simple piece of paper with the word "bomb" would be sufficient.
f. If you find a bomb, don't touch it or attempt to move it. Call for help and evacuate the area immediately.

3. Illness/Injury

In the event of a serious illness or injury occurring within the Medical Examiner's Office**,** the following steps will be initiated immediately:

a. For any life-threatening emergency, call 911.
b. For all work-related illnesses or injuries, employees must promptly report any work-related illness or injury to their supervisor and complete an Accident form.
   - If medical treatment is needed, the employee or the supervisor must call the Safety Office (425-388-3413). The "Employee L&I Injury Packet" of forms must be completed and taken to the attending health care provider's office. The health care provider must complete the medical forms in the Injury Packet.
   - Occupational medical care for work-related incidents is provided at Health Force Occupational Medicine at the walk-in clinic at 3311 Wetmore or at 11001 31st Place West Suite 1 (Paine Field) during normal business hours (8:30 a.m. to 5:00 p.m. M-F). During non-business hours medical attention is provided by the Providence Everett Emergency Room.
c. The employer shall maintain an Injury Log. The Injury Log shall be maintained in accordance with Policy 20.20, Addendum to Exposure Control Plan, subsection 20.20.060, and shall include the recording of percutaneous injuries from contaminated sharps.
d. For the complete procedure for reporting job accidents and injuries see procedure number 8 in the Snohomish County Safety Manual.

4. Fire

In the event of a fire occurring within the Medical Examiner's Office the following steps will be initiated immediately:

a. If there is a fire – evacuate and call 9-1-1. Your safe exit must be given the highest priority. On your way out, if it can be done safely, turn off equipment. Close the door to your office.
b. If a person's clothing is on fire, he/she must not be allowed to run, as this will fan the flames and cause more serious burn. Either put the person under a shower or wrap him/her in a coat, or whatever is available to smother the flames. Roll the person on the floor if necessary. After calling emergency numbers, place clean, wet, ice-packed cloths on small burned areas, wrap the person warmly to avoid shock and secure medical assistance.
c. Remember: STOP, DROP, AND ROLL.
d. If the fire is small, such as a wastebasket fire, a reasonable attempt to extinguish the flames should be made. Even though the fire may be completely extinguished, the incident must be reported to your supervisor and to the Safety Office.

e. Know the location of all exits.
f. Plan your escape. Know two ways out of every room, in case smoke or flames block your primary exit. Promptly report to the assembly area outside the building, and account for all persons.
g. Report any missing person to the fire department. Do not go back inside the building.
h. **Never** use water on an electrical fire.
i. Know where the ABC type fire extinguishers are located and how to use them.
j. If caught in smoke – drop to your hands and knees and crawl; breathe shallowly through your nose and use your clothing as a filter.
k. If you are forced to advance through flames, hold your breath, move quickly, cover your head and hair, keep your head down and close your eyes as much as possible.
l. If you are in a room and cannot escape, leave the door closed, stay low to the floor, and hang a white or light-colored fabric in the window.

5. Hazardous Material Incident

In the event of a hazardous materials incident occurring within the Medical Examiner's Office**,** the following steps will be initiated immediately:

a. Move away from the area of the spill. Immediately alert others working nearby and advise them to stay away from the contaminated area.
b. Avoid tracking or spreading the material unnecessarily. If you can do so with no risk, contain the spilled material by making a dike with absorbent or sand.
c. If the spilled material is very hazardous, volatile, or has a large volume, isolate the area by closing, but not locking, all doors leading to the area and by posting clearly visible, hand-printed DANGER, KEEP OUT signs on the closed doors. If it is not possible to do this, delineate the spill area with rope, tape or makeshift barricades, and warning signs, or station a person at an appropriate place to keep people from entering.
d. Avoid breathing the vapors of spilled chemicals. If a respirator is necessary, leave the area immediately, restrict access of other people and call the Safety Office (425-388-3413).
e. Prevent the spill from entering floor drains, storm or sanitary sewers by diking either the spill or the drains with absorbent.
f. Use an appropriate spill kit or appropriate material to neutralize or absorb the spill. Use only the kit designed for the material spilled. See additional instructions for specific substances in the "Material Safety Data Sheets."
g. Spills of hazardous chemicals that involve personal contamination generally constitute a greater hazard than other spills, since the probability of the chemical entering the body is increased. For this reason it is important to act swiftly to remove the contamination from the skin before the skin is damaged or a significant amount is absorbed into the body. All contaminated clothing must be removed as quickly as possible while using the safety shower. Immediately wash the affected area with water, applying mild soap and flush with water for 15 minutes. Repeat these procedures until clean or if pain returns. Check the "Material Safety Data Sheet" to determine if special medical procedures are required and take

the "Material Safety Data Sheet" or other pertinent literature on the effects of the chemical to the attending health care provider. Follow the Illness and Injury procedures in Section 3, (above).

h. Following a hazardous materials spill, you may be given directions from authorities to either evacuate the area or "Shelter-in-Place."
i. If the order is evacuation, do so immediately, carefully following directions. Do not wander; know where you are going, and how to get there. See 90.10.050 EVACUATION / NON-EVACUATION PROCEDURES
j. If the order is to remain in work facility, follow the directions for "Shelter-in-Place."
    1) Move or stay inside.
    2) Close all windows and doors.
    3) Turn off ventilation systems (fans, heating and air-conditioning systems, etc.).
    4) Go into the laundry room and seal the room. This room was chosen because it has the fewest doors and windows.
    5) Dampen towels and place in the crack under the bathroom exit doors.
    6) Cut plastic sheeting to fit over the windows and vents. Secure the plastic in place with duct tape.
    7) Tape around the door(s).
    8) Turn on the radio that is stored in the laundry room.
    9) Stay in the room until told it is safe for you to come out.

6. Civil Disorder

In the event of civil disturbance occurring within or in the vicinity of the Medical Examiner's Office, the following steps shall be initiated immediately:

a. Pull blinds if safe to do so
b. Stay away from windows
c. Stay in office areas
d. Lock doors, if necessary
e. Follow other instructions issued by emergency personnel

7. Armed Intruder/Hostage Situation

In the event of an armed intruder or hostage situation occurring within the Medical Examiner's Office or on the grounds**,** the following steps will be initiated immediately:

a. Conduct an immediate assessment confirming the type of incident, what has happened, who is involved, the type and number of weapons, etc.
b. Call 911. Have someone stay on line with 911 to explain the current situation and update status.
c. Secure the immediate area, if possible, by removing all non-participating persons, and secure the door, if appropriate, to isolate the incident. Announce a lockdown over the intercom system (Dial "page 4"; wait for the tone, and begin speaking slowly and clearly.) and employ sheltering action for those exposed to danger. Use basic duck and cover techniques: lie flat, face down, on floor, cover head, get under tables/desks if possible.
d. Notify the Executive's Office at 425-388-3460, and inform the Safety Office at 425-388-3413.

e. Turn off lights and, if safe, close the blinds.
f. Account for all employees on and off site.
g. Ensure all others are sheltered in place or moved to a safer location if possible.
h. Wait for law enforcement to arrive.
i. Stay calm. Follow instructions of captor. Cooperate, be friendly if possible, do not argue with or antagonize captor or hostage(s).
j. Inform captor(s) of medical or other needs. Use first aid to care for injured.
k. Be observant but do not stare. Remember everything you see and hear.
l. Provide employees with instructions and information as soon as possible
m. Protect the crime scene and evidence.
n. Initiate recovery and follow-up activities.

8. Utility and Energy System Failure
In the event of a utility and energy system failure occurring within the Medical Examiner's Office**,** the following steps will be initiated immediately:

a. The backup generator will automatically come on. The generator is capable of one week essential operating functions, with all non-essential uses shut down.
b. Turn off unnecessary electric equipment and appliances to reduce the load on the generator.
c. Unplug computer and other voltage-sensitive equipment to protect them against possible power surges when power is restored.
d. Conserve water
e. Keep refrigerator, morgue and freezer doors closed.
f. Manually operate garage door and gate. The key that opens the gate control box is inside the emergency response equipment room. Access the emergency response equipment room from the exterior door located to the left of the garage doors using the AA2 key. An "L" bar in the control box that can be used to turn the mechanism to manually open the gate.
g. Use battery-operated flashlights or glow sticks for alternative lighting.

## 1.5 Evacuation / Non-Evacuation Procedures

A. **Evacuation**

1. In the issuance of an evacuation command or alarm, the following steps will be initiated immediately by all personnel:
   a. Secure all sensitive documents, including open computer files.
   b. Forward telephones to answering service, cell phone(s) or pager(s)..
   c. Turn out the lights and equipment that cannot be left unattended (i.e. coffee maker, faucet with stopped up sink). Close door(s) to work areas. Take along coats, pagers, cellular phones, valuables, gate key, building key and car keys.
   d. All personnel shall proceed quickly out the designated or closest emergency exit, (See evacuation plan maps posted in hallways.) and walk quickly to the designated assembly area. Be vigilant of traffic, especially emergency response vehicles, when walking to the designated assembly area.

e. Check-in with the Runner.
f. Do not reenter building until emergency response officials have declared it safe to do so.

2. Procedures to be Taken by Safety Committee Members, Runner and Sweeper
   a. Instruct visitors to leave the building and walk to the designated assembly area.
   b. Assist the general public, hearing impaired, disabled or non-English speaking persons to evacuate the building according to established routes.
   c. Exit the building when everyone in the assigned area has left or personal safety is threatened, proceeding quickly to the designated assembly area.
   d. Proceed quickly out the designated or closest emergency exit (see evacuation plan map). Walk quickly to the designated assembly area.
   e. Identify and report location of any person(s) needing evacuation assistance, medical assistance, rescue or other emergency needs to the Associate Medical Examiner and emergency responder.
   f. Stay with the department staff at the evacuation site.
   g. Await instructions by Associate Medical Examiner and Emergency Response personnel.
   h. Designated runner duties are as follows:
      i. Take roll call at the Evacuation Assembly Area, using sign-in sheets and log in-and-out sheet to account for all visitors and employees if necessary, and
      ii. Report to the Associate Medical Examiner whether all personnel and visitors are present and accounted for and identify any persons who are missing.
   i. Designated sweeper duties are as follows:
      i. Wear identifying yellow safety vest and white hard hat during evacuation;
      ii. Inspect all work areas and restrooms to ensure they have been vacated;
      iii. Determine if any assistance is necessary for evacuation of injured or disabled personnel, and
      iv. Report the location of any persons needing medical assistance or evacuation assistance to the emergency responder.

3. Procedures to be Taken by the Associate Medical Examiner
   a. Determine the nature of emergency.
   b. Proceed to the designated assembly area, and report to Chief Medical Examiner.
   c. Receive briefing from the Safety Committee members, sweeper and runner.
   d. Notify emergency response personnel of status of evacuation or direct runner to perform this function.
   e. Maintain close communications with runner, Chief Medical Examiner and emergency response personnel.
   f. Inform occupants when it is safe to reoccupy the building.

**B. Non-Evacuation**

1. In the issuance of a non-evacuation command, the following steps will be initiated immediately:
   a. Account for all employees on and off site.
   b. Ensure personal and county property is secure. Do not leave gates, vehicles, buildings or other property open or unattended.
   c. Organize existing staff to cover operations, security and administration duties
   d. In the event of a disaster that prevents evacuation for a 24-hour period or more, the following pre-planned actions are to be taken:
      i. Report promptly to the designated internal assembly area in the laundry room.
      ii. Estimate period of time anticipated that staff will be required to stay at facility
      iii. Move two couches and futon to large conference room and set up the area for safe and secure sleeping accommodations
      iv. Determine food and water needs for number of employees staying at facility
      v. Inventory existing stock of water, perishable and non-perishable food, and replenish as necessary
      vi. Consider turning off the HVAC units if biological or chemical weapons are used.

2. When the order is “Shelter-in-Place” follow the emergency event procedures for Hazardous Material Incident, Section 90.10.040. B. 5. j.
3. Procedures to be taken by the Associate Medical Examiner are the same as for an Evacuation.

## 1.6 Assembly Area

A. In the event of an evacuation all employees within the Medical Examiner’s Office will report to the open field area that is located northwest of the main entry for Paine Field Airport at 3220 100 Street SW, Everett, WA and east across the street from the Museum of Flight.

B. In the event of a non-evacuations or shelter-in-place all employees will report to the laundry room. See Section 90.10.040.B.5.j, “Hazardous Materials Incident” for shelter-in-place procedures.

C. All employees shall remain at the assembly area until the Runner has conducted the roll-call/check-off procedure, reported the findings to the Associate Medical Examiner and further instructions are issued by the Associate Medical Examiner or in his/her absence to the Deputy Director.

D. In the event of an evacuation, under no circumstances will reentry into the facility be allowed without the approval of the Command Post or the professional emergency response person in command at the scene.

## 1.7 Inventory

A. All primary and alternate emergency exit routes shall be reviewed by the Safety Committee annually to ensure that alterations are not necessary.

B. All emergency materials shall be inventoried and inspected by the Safety Committee annually to ensure that they are accounted for and in proper working order. The emergency materials inventory includes:

1. Office of the Medical Examiner's Facility Emergency Preparedness Plan
2. Medical and sanitation
   (a) First aid kit (in morgue and vehicles)
   (b) Soap, tissue paper, antibacterial towelettes, chlorine and shovel for personal waste.
3. Food and Water
   (a) Non-perishable food for three persons for three days
   (b) One gallon water per day per person for three persons for three days
   (c) Manual can opener, eating utensils
   (d) Cooking tools – camp stove, fuel, charcoal, matches, pans and utensils
4. Safety Equipment
   (a) Fire extinguisher (ABC type)
   (b) Smoke detector and fire alarm
   (c) Tools, including signal flare and sparkles wrench
   (d) Battery powered radio and flashlight
   (e) Shovel (found in the field archeology kit).
5. Vehicles can serve as moveable, second shelter and office. Check to ensure that the Vehicle Checklist is current and that inventory or repairs are complete.

## 1.8 Floor Plans

A. Floor plans which clearly indicate all primary exit routes (red arrows), alternate exit routes (yellow arrows), fire extinguishers (red E), first aid kits (red K), fire alarms (red A), fire hose (red H), and general emergency telephone numbers are posted on the walls of the hallway.

## 1.9 Warning System

A. The primary warning system for any emergency event affecting the Medical Examiner's Office is a series of fire alarm units located within the hallways that emit an audio alarm and a flashing light.

1. Persons who are hearing impaired will be warned by Flashing light on the alarm unit, written note and gestured directions.
2. Members of the non-English speaking community will be warned by audio alarm and gestured directions.

B. The alternate warning system for any emergency event affecting the Medical Examiner's Office is the facility generator will automatically start to operate and provide back-up power.

C. The Safety & Health Officer shall be notified immediately of any failure or reduced level of effectiveness to either the primary or alternate warning systems.

## 1.10 Return to Normal

Once the Medical Examiner's Office has been declared safe by the Command Post or an emergency response professional following an emergency event, action will be initiated as set forth in Section.2.0, Disaster Recovery Plan, to bring operations back to normal as quickly as possible.

# SECTION 2.0

# Disaster Recovery Plan (DRP)

## 2.1 Purpose

Short-term Recovery is the restoration of vital services and facilities to minimum standards of operation and safety. The purpose of this plan is to assess risks, identify critical and essential functions and establish a plan of action for resuming critical and essential business functions following an emergency that has damaged or restricted communication, transportation, facility access, facility equipment, records and property, and/or electronic documents and data. This plan does not include a public disaster response; it is covered in the Emergency Preparedness Plan.

Risk assessment and impact analysis of possible emergency incidents disrupting continuity of government services

A. Natural or environmental disaster. Weather, chemical, radiation or some other environmental disaster that causes it to be unsafe for citizens and staff to leave their homes.
B. Exposure from highly contagious disease within facility
    1. Quarantine of staff within facility
    2. Exclusion of back-up staff from the facility
C. Loss of utilities and other public services,
    1. Electrical power
    2. Heat
    3. Water
    4. Sewer
    5. Trash collection
D. Loss, damage or overload of telecommunications systems
E. Loss or disruption of transportations system
    1. Restriction of staff ability to response or report to primary facility
F. Loss or damage to building
    1. Loss of records: documents, photographs
    2. Loss of tissue samples
    3. Loss of evidence and personal property
    4. Loss of access to morgue
    5. Loss or damage to equipment (x-ray, photography, chemicals, tools, bio-waste
G. Loss of technology functions: information, documents, imaging and data systems
    1. Loss of electronic data produced, but not backed-up prior to emergency
    2. Access to electronically backed-up and stored documents and data base (METS)
    3. Serious breach of information security

H. Loss or overload of critical service providers: laboratories, suppliers, and funeral homes.

## 2.2 Critical Business Functions and Prioritization of Reinstatement

Critical operations and other business functions are listed in descending priority order with estimated essential time lines for resumption of operations.

Business functions to be reinstated with time estimate for reinstatement

| Function | Reason | Recovery Time |
|---|---|---|
| First Priority Functions | | |
| 1. Receive notification of death | Health/Safety | 0 - 3 days |
| 2. Receive notification and respond to scene of death; conduct on-site investigation | Health/Safety | 0 - 3 days |
| 3. Gather and transport human remains and evidence to MEO. | Health/Safety | 0 - 3 days |
| 4. Perform autopsies | Health/Safety | 0 - 3 days |
| 5. Take and store autopsy specimens | Health/Safety | 0 - 3 days |
| 6. Digital and analog photography | Health/Safety | 0 - 3 days |
| 7. Locate and notify next-of-kin; complete report | Health/Safety | 3 - 7 days |
| 8. Release remains to funeral home | Public service | 3 - 10 days |
| Second Priority Functions | | |
| 9. Documentation of response and recovery decisions, actions, costs and outcomes | Business demand | On-going |
| 10. Payroll, financial accounts, records and administration | Business demand | 7-21 days |
| 11. Counter Service—respond to family questions | Business demand | 7-21 days |

| Function | Reason | Recovery Time |
|---|---|---|
| Third Priority Functions | | |
| 12. Documentation retrieval or recreation:<br>a. Electronically stored documents and data bases, including Medical Examiner Tracking System (METS)<br>b. Hard copy of Death certificates, laboratory reports, evidence and property logs<br>c. Reproduction of documents not backed-up prior to emergency | Business demand | 21+ days |

## 2.3 Action Plan

B. Preparations in anticipation of an emergency:
   1. Identify, document and coordinate with DIS for key business phone numbers to be forwarded to and to receive business calls.
   2. Identify off-site locations where laptop and networked computers can be utilized and connected to electronically saved documents and backed-up database.
   3. Identify job functions that may be performed by telecommuting.
   4. Identify geographic distribution of employees that could dispatch from their home for investigation and transport to funeral homes in the same geographic region.
   5. Use external resources for communications and document replacement
      a. Cellular telephones, pagers, laptop and home computers,
      b. Maintain daily electronic data system back-up and storage at main campus,
      c. Laboratories, hospitals, Snohomish county Health District and professional service providers, and
      d. Employee recreation of documents created but not electronically backed-up.
   6. Maintain daily electronic back up and weekly delivery of back-up disk to DIS facility.
   7. Ensure full and mobile inventory of supplies by auditing supplies in each vehicle to inventory list at the beginning of each shift.

C. Communication process and requirements:
   1. Use existing or alternative communication methods such as pagers, cell phones, radio or hand courier:
   2. Follow notification and authority sequence of management team for control and coordination of operations.
   3. Issue notice and briefings to on-duty and off-duty employees, other officials and customers,
   4. Restrict media relations to authorized spokesperson(s).

5. Response to information requests of family of deceased.
6. Distribute interagency information as required (vitals, etc.)

C. Transport in case of loss of transportation infrastructure
    1. Use air or other forms of transport provided by Paine Field, Sheriff, Search and Rescue, National Guard and/or Navy.

D. Facility operations in case of loss of utilities:
    1. Maintain reserve supply of potable water
    2. Deskwork can be performed using natural light.
    3. Garage door and gate can be manually operated.
    4. Facility generator is capable of one week essential operating functions, with all non-essential uses shut down.

E. Facility alternatives in case of loss use of facility;
    1. Use funeral home facilities for storage and autopsy site(s)
    2. Use refrigerator truck for storage of bodies

F. Administration and finance:
    1. Document damages and response,
    2. Record related expenditures of material, labor and other costs,
    3. Reinstate essential financial functions (payroll, accounts payable and receivable) and financial controls. If necessary they can be performed and documented manually for entry into the electronic database at a later date.

# SECTION 3.0

# Mass Fatality

## 3.1 Policy

A. It is the policy of The Medical Examiner's Office to maintain a high standard of emergency preparedness and coordination throughout all operations of the Medical Examiner's Office and within the established emergency response system.

1. In the event of a mass disaster involving fatalities, the medical examiner functions shall be integrated into the established emergency response system to ensure that human remains are treated with respect and that victims are accurately and timely identified to satisfy humanitarian considerations and civil and criminal investigative needs.
2. All persons, including public safety and health officials, within Snohomish County are required by law to notify the Snohomish County Medical Examiner (SCME) of any incident involving an unattended death but have no responsibility or authority for identifying victims or determining the cause or manner of death. The SCME is vested by state law with jurisdiction over the bodies in all deaths within the county that are sudden, unexpected, unexplained, unlawful, from trauma or violence, from a suspected contagious disease, or the body is unclaimed by relatives or friends. The statutory duty of the SCME does not change as the number of victims increases.
3. The SCME shall coordinate the incident response involving mass fatalities occurring within Snohomish County and may include local, state and federal officials.
4. In the event of a mass-fatality incident (MFI), the attached **SCME Mass Fatality Plan** shall be implemented for the identification of victims, the determination of cause and manner of death, the notification of families, and the final disposition of remains

B. Major Operations Assignments. The Chief Medical Examiner shall oversee the three major operations that must be conducted in the event of a mass fatality incident. All three operations need to be set up and coordinated at the same time. Procedures shall be developed and maintained current for each of the three operations. The primary function and personnel assigned to be in charge of each operation are as follows:

1. SCENE
   Body recovery
   SCME Chief Medical Investigator

2. EXAMINATION CENTER
   Body identification and processing
   SCME Associate Medical Examiner

3. FAMILY ASSISTANCE CENTER
   Antemortem information, care of families
   SCME Deputy Director

C. Adjustments. Deviation from this Policy, the adopted SCME Mass Fatality Plan, and supplemental Mass Fatality Procedures may be implemented according to the extent and type of the incident and the best methods of response as determined by the CME.

D. Training.

The SCMEO will conduct an annual Mass Fatality training, testing, and exercise program. The training program will vary from year-to-year to cover the following essential components:

- Training all personnel in their Mass Fatality responsibilities;
- Conducting periodic exercises to test and improve the Mass Fatality plan, procedures, systems, and equipment; and
- Instituting a multi-year process to ensure continual plan updates in response to changing conditions.

E. References:

1. RCW 68.50 Human Remains.
2. U.S. Department of Justice, Office of Justice Programs, Special Report, “Mass Fatality Incidents: A Guide for Human Forensic Identification”, June 2005.
3. National Association of Medical Examiners, Model Mass Fatality Plan
4. National Disaster Medical System (NDMS)
5. Disaster Mortuary Operational Response Team (DMORT)
6. Aviation disaster Family Assistance Act of 1996
7. National Transportation Safety Board (NTSB), Federal Plan for Aviation Accidents Involving Aircraft Operated by or Chartered by Federal Agencies

# SECTION 3A
## Mass Fatality Plan

## I. INTRODUCTION

A. Purpose
The purpose of this plan is to provide an effective and coordinated response to an incident involving mass fatalities occurring within Snohomish County. This plan is to be considered as a guideline to assist staff in making an optimized response to a Mass Fatality Incident (MFI) and is not to be considered as a rigid, inflexible set of rules.

B. Medical Examiner Jurisdiction and Responsibilities
1. The jurisdiction of bodies of all deceased persons who come to their death suddenly in Snohomish County is vested in the Snohomish County Medical Examiner (ME) and codified by the Revised Code of Washington (RCW) 68.50.010.
2. The ME is responsible for the 24-hours-a-day, 7-days-a-week (24/7) investigation and determination of cause and manner of death, identification of the deceased, and ensuring the notification of next of kin.
3. In the event of a Mass Fatality Incident (MFI), the jurisdiction and responsibility of the Medical Examiner remains the same.

C. Definition
A mass fatality incident is defined as any situation in which there are more human bodies to be recovered and examined than can be handled by the usual local resources.

D. Probability Assessment
Probable events that could result in mass fatalities would include an airplane accident, mass transit accident, fire, explosion, industrial accident, terrorism incident, earthquake, tsunami or epidemic.

E. Levels of Severity:
Levels of severity in a MFI may be revised on a case by case basis, depending upon assessment of factors including, but not limited to the following: the complexity of the deaths, fragmented or contaminated human remains, environmental conditions, physical destruction or damage that disables regional infrastructure and limits access. See Emergency and Disaster Policy, Section 4.0, Contaminated Remains.

Level I

A MFI of 15-20 uncomplicated fatalities would be handled by Medical Examiner Office (SCMEO) personnel according to standard operating procedures.

Level II

A MFI of 21 to 50 fatalities would require the immediate enactment of the Medical Examiner Disaster Plan, enlisting professional, technical, clerical, and manual assistance of both volunteer and paid personnel. Body storage would be allocated to the County Morgue (20 spaces). Local funeral homes could be used for additional temporary storage when needed. A refrigerated truck or rail car could also be used for temporary storage.

Level III

A MFI of 51 to 200 fatalities would require procurement of additional refrigerated storage. Separate refrigerated trucks should be used to store bodies, both prior to examinations and after examination. Activities would be coordinated with the Snohomish County Department of Emergency Management (DEM) to obtain for use additional Health Department, County, and State resources. Federal aid would likely also be sought, including the services of DMORT teams.

Level IV

A MFI exceeding 200 fatalities may require consideration of two additional options.

1. Temporary burials (See Emergency and Disaster Policy, Section 5,0Mass Burial) may become necessary when:

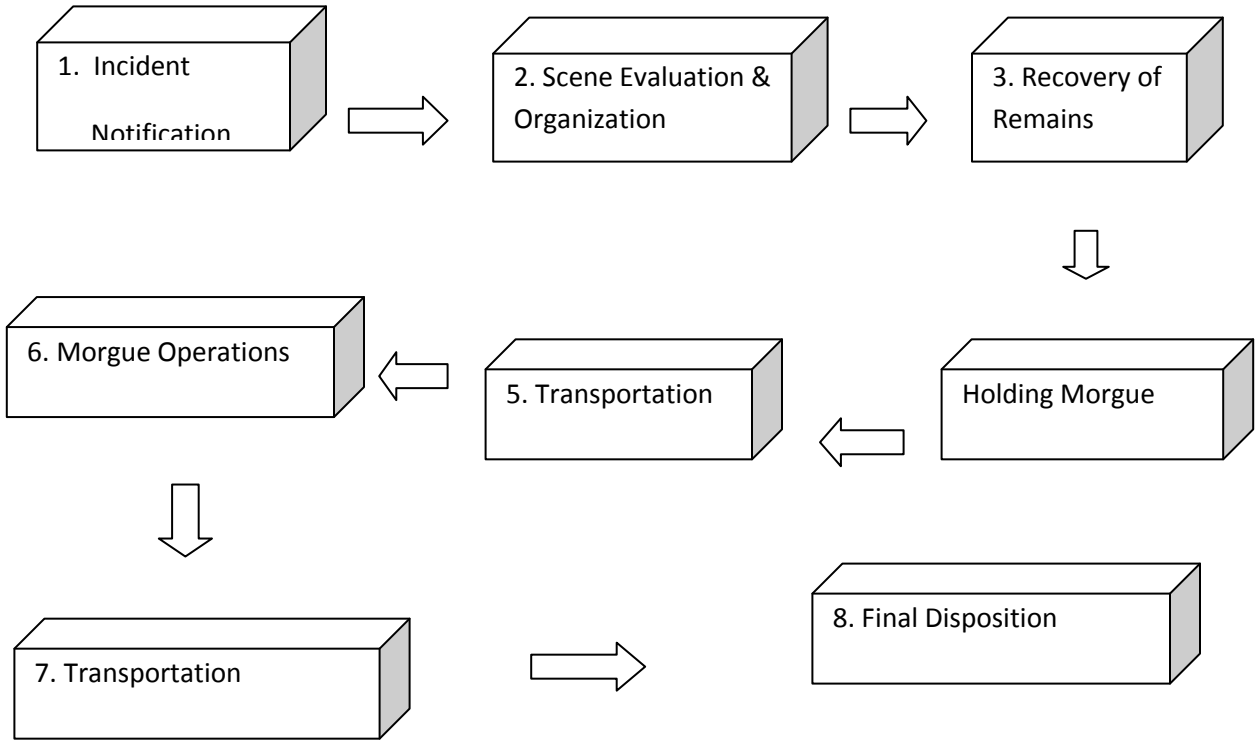
   a. Remains cannot be adequately refrigerated to allow for the possibility of future forensic investigation and identification.

   b. Biological, chemical, and/or radiological contamination of the remains pose a severe threat to public health.

   c. All public and private health and mortuary capacities are overwhelmed, unable to manage the number of remains, and the remains become a public health risk.

2. A representative 5% of victims may be examined by autopsy after identification, at the discretion of the Chief Medical Examiner.

F. SCMEO Flow Chart for the Processing of Remains




The Snohomish County Department of Emergency Management will be notified and the Family Assistance Center will be activated.

***Source: The California Mass Fatality Management Guide:***
*A Supplement to the State of California Coroners' Mutual Aid Plan*
*(State of California Governor's Office of Emergency Services)*

## II. INITIAL CALL

A. When the initial call about the incident is received, the on-duty Investigator shall collect critical information about the incident. The on-duty Investigator does not immediately respond to the scene.

Questions that should be asked at the time of the initial call are as follows:

1. What happened?
2. Where did it happen?
3. When did it happen?
4. How many dead are there?
5. How big is the area, the scene (e.g., hundreds of feet or miles)?
6. Who is in charge at the scene? Is that going to change?

7. When is the ME going to be needed?
8. Where is the command post? Who is running it?
9. How do we communicate with the command post? Cell phone, radio, email, dispatch?
10. What is the access route and will someone meet the ME when we arrive?
11. Any special hazards or circumstances?

B. Upon collection of the scene information other members of the office shall be contacted in the following order. See S:\Confidential - Employee phone lists\for the COOP PLAN Worksheet 4NEO Employee Roster.doc (confidential)

1. Chief Medical Investigator
2. On-call pathologist
3. Chief Medical Examiner
4. Deputy Director
5. Master Medical Investigator
6. Medical Examiner Office Investigators
7. Autopsy staff
8. Administrative staff

C. Depending on the severity of the incident, the Chief Medical Examiner or his designee may notify the Snohomish County DEM and request Emergency Operations Center support in coordinating the event.

D. The Chief Medical Examiner or his designee shall notify the County Executive, Deputy Executive and may request PIO support.

Note: The order and delegation for calling some or all SCMEO personnel may be modified by the Chief Medical Investigator. See Section III, Disaster Roles and Responsibilities by Job Title.

## III. COMMUNICATIONS

MFI-Related Communication:

Priority of use for communication devices shall be as follows:

1. Telephone, specifically, land-line numbers at the Medical Examiner's Office facility and the autopsy room telephone at the morgue (if at a separate site).
2. Cell phones – SCMEO issued cell phones and personal cellular telephones for telephonic communications, text and push-to-talk communications. See *Appendix A for the Snohomish County Medical Examiner's Office personnel telephone list*
3. Residential land-line telephone. See *Appendix A: SCMEO Personnel Telephone List*
4. 800 MHz Radio System – The SCMEO has five (5) 800 MHz Radios. Additional radios may be requested from DEM.
5. E-mail: (This can be used for non-priority, non-confidential matters).

6. Request Auxiliary Communication Service via DEM.
7. Dispatch a runner to homes
8. The Department of Information Service (DIS) will provide a specially-assigned land-line number(s) for incoming MFI related calls. This specially-assigned phone number(s) will be published to dispatch, the news media, and internet and will allow the separation of MFI calls from routine caseload communications.

## IV. DISASTER ROLES AND RESPONSIBILITIES BY JOB TITLE

In the event of a MFI, SCMEO personnel would assume the following job functions, after assuring the safety of their own families:

A. **Chief Medical Examiner**

1. Responds to scene and evaluates the scene;
2. Assumes jurisdiction of fatalities and organizes investigation;
3. Communicates with the SCMEO as to the needs at the scene;
4. Reports to Snohomish County Emergency Operation Center (if activated); and
5. Returns to the SCMEO or temporary morgue and proceeds with examinations.

**B. Associate Medical Examiner**

1. Responds to scene as member of the evaluation team;
2. Returns to morgue;
3. Acts as director of the Medical Examiner's Office in absence of Chief Medical Examiner;
4. Supervises preparation of autopsy facility;
5. Proceeds with examinations; and
6. Assign roles based on available personnel.

**C. Chief Medical Investigator**

1. Responds to scene as member of the evaluation team;
2. Maintains contact with Medical Examiner's Office;
3. Obtains scene safety, security, MFI supplies and equipment, and scene and transport personnel (paid and volunteer);
4. Reports to Medical Examiners regarding needs of Medical Investigators and coordinates activities of the Investigators, and volunteers;
5. Supervises the scene investigation; and
6. Supervises removal and transport of fatalities.

**D. Master Medical Investigator**

1. Reports to SCMEO or to the scene, as directed;
2. Maintains contact with Chief Medical Investigator (scene supervisor); and
3. Schedules and coordinates the Search and Recovery teams.

**E. Medical Investigators***

1. Report to SCMEO or scene as directed;
2. When assigned to the scene:
    a. Serve as Search and Recovery team leaders;

   b. Maintain contact with the Master Medical Investigator; and
3. When assigned to the office:
   a. Prepare paperwork/database for body receiving and release;
   b. Prepare paperwork/database for identification and tracking;
   c. Coordinate with funeral homes for release;
   d. Coordinate with Vital Records for completion of death certificates.
4. The "on-duty" investigator is responsible for non-MFI death investigations as per usual routine.

* May be required to assist Morgue section.

**F. Pathology Assistant(s)***

1. Report to SCMEO or temporary morgue, as directed;
2. Dispatch personal protective equipment;
3. Call autopsy volunteers as directed by Associate Medical Examiner, including the Mass Disaster Dental Identification Team, and radiology contacts;
4. Prepare emergency supplies;
5. Coordinate delivery of refrigerated trucks and allocation of space for body storage at direction of Chief Medical Investigator;
6. Prepare work stations for emergency teams; and
7. Proceed with examinations.

* May be required to assist Investigation section.

**G. Accounting Technician II**

1. Prepares emergency office and FAC supplies;
2. Performs and maintains records for accounts payable, accounts receivable, inventory, and payroll;
3. Documents all expenses associated with the disaster that are directly related to the SCMEO's response to the MFI;
4. Sets up an electronic (or paper) data collection system to account for and track the identity, hours and location of use of all paid and volunteer labor, supplies and equipment that is purchased and used by the SCMEO in the MFI response;
5. Coordinates and arranges for data entry into the total record system from the Logistics Team and the scene, morgue and FAC Accounting Registrars;

**H. Deputy Director**

1. Coordinates with Chief Medical Examiner, Associate Medical Examiner and Chief Medical Investigator for amount of help and supplies needed at the scene;
2. Communicates and coordinates with Logistics Teams (Section VIII) and DEM regarding SCMEO needs for personnel, supplies and equipment;
3. Contacts site for possible list of fatalities;
4. Assists with contact of DEM, agencies and volunteers as necessary;
5. Obtains storage for personal property if needed;
6. Insures staff have adequate supplies and help within SCMEO;
7. Coordinate emergency services for office staff (food, bedding, etc.);
8. Coordinates with Executive Office Public Information Office (PIO) to ensure timely and appropriate communications with public, law enforcement and press;

9. Coordinates with Law Enforcement PIOs and Joint Information Center;
10. Insures security for SCMEO, Temporary Morgue or Family Assistance Center (FAC);and
11. Initiates the establishment of the FAC.
1. Coordinates the SCMEO operations at the FAC.
2. Coordinate and direct clerical help, utilizing pre-identified volunteers as appropriate, and/or temporary help agencies for transcription, data entry and typing.
12. Coordinate and direct telephone bank and maintenance of telephone logs, utilizing pre-identified volunteers as appropriate, and/or temporary help agencies. (In the alternative, this may be delegated to the office assigned Medical Investigator.)

## V. INITIAL RESPONSE

A. The Evaluation Team will, at a minimum, be comprised of:
   1. Chief Medical Examiner (CME)
   2. Associate Medical Examiner (AME)
   3. Chief Medical Investigator (CMI)

B. The Evaluation Team will:
   1. Proceed together to the disaster site.
   2. Establish communications with the command post and integrate the SCMEO response into the disaster response.
   3. Determine the safety of the scene and obtain clearance from the appropriate agency before the evaluation team enters.
   4. Request that scene security and bomb technicians or other specialists be maintained and utilized as indicated after survivors are removed.
   5. Assume jurisdiction of fatalities.

C. Evaluation of the scene. Factors to be considered are:
   1. Number of deceased
      a. Potential or real number of fatalities
      b. Condition of the bodies
      c. Open or closed population
   2. Size of the incident scene
   3. Accessibility of the incident scene
   4. Level of difficulty in recovery
   5. Special considerations (e.g., cadaver dogs; special equipment)
   6. Possible biological, chemical, physical, or radiological hazards. See Emergency and Disaster Policy, Section 4.0, Contaminated Remains
   7. Formulation of a plan for documentation, body recovery, and transportation.
      a. Types and numbers of personnel and equipment needed
      b. Organization of the scene investigation.

c. Selection of site for Temporary Morgue– estimate personnel needs. This morgue can be used as a holding area until the examination center is prepared to receive additional bodies.
d. Selection of a site for the Morgue Examination Center – estimate personnel needs.
e. Selection of a site for the Family Assistance Center- estimate personnel needs.

8. DMORT (Disaster Mortuary Operational Response Team) – If it appears appropriate, DMORT can provide a Multidisciplinary Assistance Team to aid the evaluation of the need for additional personnel and equipment. Ideally, the team should be available and on-site in less than 24 hours. During an emergency response, DMORT will work to support local authorities and provide technical assistance and personnel to recover, identify, and process deceased victims. The main unit may be preceded by a DMORT evaluation team. A part of National Disaster Medical Services (NDMS), DMORT may be activated under several legal authorities, including the National Response Framework (NRF), the Public Health Services Act, the Aviation Disaster Family Assistance Act, Presidential Mandate, and through existing agreements between the Federal and State governments. DMORT is accessed by the SCMEO through a request to their Emergency Management Agency. DMORT also has temporary portable morgue facilities available. The DMORT team may be comprised of 62 people and may need 6,000 square feet of space. The decision to call DMORT in will be made by the Chief Medical Examiner.
9. When DMORT or any other outside agency is brought in to assist, liaison personnel will be assigned by the Chief Medical Examiner to meet daily and provide direction regarding the scope and performance of their assigned duties.

D. Sites of operation under the direction of the Chief Medical Examiner:
1. The Scene for body and initial evidence recovery. A temporary morgue may be established and used as a holding area until the examination center is prepared to receive additional bodies.
2. The Morgue Examination Center for body identification and processing.
3. The Family Assistance Center for
   a. Acquisition of antemortem information
   b. Care of the families
   c. Positive identification notification
   d. Media information
4. The Long Term Examination Site for processing Biological Specimens and evidence not originally accessed at the Scene or Morgue/Examination Center.

## VI. FATALITY NUMBERING /IDENTIFICATION

A. The Medical Examiner's Tracking System (METS) has a separate auto-generated numbering system which shall be used for the identification and tracking of Mass Fatality remains in a manner that is separate from the routine caseload.
B. A unique "Total Station" or manual map/grid numbering system should be used at the scene for each body or separate body part. (The Washington State Patrol or

Snohomish County Sheriff's Office may assist in forming a grid of the disaster area, using "Total Station.") This unique location identification number will be entered into METS on the first page under the "Incident/Injury" section in a "Total Station #" box.

## VII. SCENE BODY RECOVERY

A. The Chief Medical Investigator (Scene Supervisor) and Master Medical Investigator (Search and Recovery Supervisor) will develop a plan in conjunction with police, fire, and rescue personnel. The Incident Command System (ICS) will be instituted. This assures a unified command center with a specific individual in charge through which all activities are coordinated. It follows the standard fire model.

B. Equipment (*Appendix B: Equipment and Supply List*):
Organize equipment and supplies before attempting to move bodies. At a minimum, the following will be required:
   1. A Recovery Scene Equipment/Supply Officer(s) will be designated by the Chief Medical Investigator who will work in coordination with the Logistics Team (Section VIII).
   2. Protective Clothing: gloves, boots, coats, hard hats, rain suits, and respirators (etc) as dictated by the situation.
   3. Substantial Body Bags; number and type.
   4. Refrigerated Trucks with metal floors which allow decontamination: 20 bodies per 40 foot trailer at 35 -38ºF. Adequate fuel to supply the energy needs of the refrigeration.
   5. Transportation: Personnel, equipment, and bodies (military, other government, contract services, funeral homes).
   6. Tents & Storage.
   7. Paint for numbering (1,2,3; P1, P2, P3; E1, E2, E3…)
   8. Flags for marking locations.
   9. Plastic tags; Sharpie permanent pens.
   10. Biohazard bags & boxes.
   11. Photography equipment.
   12. "Total Station", gridding, laser survey, GPS systems.
   13. Rest stations and food
   14. Worker Safety – health provisions in place (includes having appropriate immunizations – Tetanus, Hepatitis B – up to date).
   15. Communication devices: radio, cell phones.
   16. Writing or computer equipment for scene log maintenance.
   17. Water, rest/rehabilitation supplies

C. The Chief Medical Investigator, as the Scene Supervisor, shall:
   1. Report to and keep the Chief ME apprised of the scene situation.
   2. Implement the plan in conjunction with police, fire, and rescue personnel, maintain communication with the SCMEO Search and Recovery supervisor and other agencies of the operation, and assure overall security of the scene.

3. Worker Safety - ensure that provisions are in place for the health and safety of all scene and transport workers.
4. Contact Emergency Operation Center (EOC) Officer and/or DEM to obtain outside personnel, as needed to assist. Coordinate these personnel through their respective supervisor(s) as may be necessary. (See Appendix C: Personnel Needs)
    a. Designate personnel for:
        i. Search and Recovery Assistants;
        *ii. Body Recovery Teams – removal and transfer;*
        *iii. Transport Teams;*
        *iv. Scene Tracking Registrar;*
        *v. Security Team Supervisor;*
        i. Equipment Supply Officer;
        ii. Accounting Registrar; and
        iii. Credentialing.
    b. Coordinate all movement of supplies and personnel into and out of the scene.
    c. Establish personnel rest area.
    d. Establish transport staging area.
    e. Anticipate needs and have supplies and personnel available.

D. The Master Medical Investigator, as the Search and Recovery Supervisor, shall:
1. Report to and coordinate with the Scene Supervisor (Chief Medical Investigator);
2. Select and direct search teams;
3. Make changes in the make-up of teams, as necessary;
4. Establish central location for operation of the teams;
5. Establish schedule for work shifts, meals and rest for the teams;
6. Identify and or establish rest and bathroom areas for the Search and Recover team members;
7. Coordinate food and drink for the teams;
8. Ensure that personal protective equipment (PPE) is issued and used by persons with potential of contact with human blood or other fluids;
9. Provide documentation for each shift of :
    a. Status of human remains
        i. Number or bodies, limbs, remains recovered
        ii. Location of remains (e.g. transported to morgue, recovered in staging area, discovered in the field).
    b. Any injuries, exposures, hazardous materials or circumstances, and equipment failures or equipment repair or replacement needs.
10. Establish and execute an adequate search pattern;
11. Coordinate with “Total Station” and assignment of unique numbers to each set of human remains (or each separated portion of fragmented human remains);
12. Document, process, and recover bodies, fragments and associated evidence (utilizing the Scribe and Photographer);
13. Ensure that all human remains are properly marked and accounted for before leaving the scene;

14. Coordinate and direct the removal and transfer of remains to storage in temporary morgue and refrigerated truck pending transportation to the Examination Center;
15. Coordinate and direct the Vehicle Transportation Team(s); and
16. Assists the teams as necessary.

E. Search and Recovery Teams
   1. Each team will be comprised of the following:
      a. Search and Recovery Team Leader: A SCMEO Medical Investigator or someone with MEO experience shall serve as the leader for each search and recovery team.
      b. ME Assistant(s) – Police, fire or military to assist with examination of the remains and with placing the remains into the bags.
      c. Scribe – assists with documentation and paperwork.
      d. Photographer – Separately badged. Personal cameras are not allowed at the site or scene of mortuary operations.
      e. All team members may be required to lift and carry the remains.
   2. The Search and Recovery Team Leaders shall:
      a. Report to the Master Medical Investigator (Search and Recovery Supervisor).
      b. Lead the Search and Recovery Team and direct team members as needed;
      c. Ensure location, identification and documentation of human remains at the scene including:
         i. Photography
         ii. Written documentation
         iii. Placement of bodies into body bags.
         iv. Retain Retention of personal effects (such as jewelry and identification cards), with the body, as these items may be important for determining identification.
         v. Examination and tagging of each intact body and each separate body part with the unique assigned MFI identification number.
         vi. Confirmation that the correct MFI identification number is placed on the remains and on the outside of the body bag.

      d. Communicate with “Total Station” to receive the assigned numbers and document locations.
      e. Coordination with the Scene Removal Teams.

F. Scene Removal Teams – Removal and Transfer duties:
   1. Comprised of 4 transport personnel assigned to duty by the Chief Medical Investigator (Scene Supervisor)
   2. Report to the Master Medical Investigator (Search and Recovery Supervisor);
   3. Remove and transport human remains from the location where found to the temporary morgue or body staging and holding area;
   4. Coordinate with the Search and Recovery Team Supervisor regarding the transport of human remains to transfer point;

5. Ensures paperwork accompanying the remains matches the number on the outside of the bag;
6. Complete Scene Log as required in addition to individual case records and paperwork. *(Appendix D: Logs and Forms)* ;
7. Available for other duties as needed; and
8. Physically capable of moving human remains.

G. Role of the Scene Tracking Registrar
1. Maintain records of remains, property, and/or evidence as received into the holding area at the scene and release of remains for the transport to the morgue.
2. Verify upon receipt and release that the assigned case numbers are properly documented on the sealed remains and in the log.

H. Role of the Accounting Registrar
1. Ensure that a system is in place to electronically track used labor, supplies and equipment, including the hours and location of use, and
2. Record replenishment and billing information; and
3. Coordinate the scene data entry into the total record system report for the SCMEO Accounting Technician II.

I. Role of the Equipment Supply Officer
1. Keep all supplies stocked and in an organized area so that runners may come to this area to get supplies.
2. Track supplies, documenting the beginning balance and all withdrawals.
3. Purchase and maintain needed supplies and equipment in support of the Scene Supervisor.
4. Provide purchase, replenishment, billing and dispersal records to the Accounting Registrar.

J. Role of Vehicle Transportation Team(s)
1. Work under the direction and coordination of the Master Medical Investigator (Search and Recovery Team Supervisor);
2. Comprised of a minimum of two (2) transport personnel per vehicle (may be refrigerator trucks) to move the bodies of the deceased from the temporary morgue, body staging and/or holding area at the scene to the SCMEO morgue;
3. Ensure individual case record and paperwork accompanying the remains match the number on the outside of each bag;
4. Complete Transport Log. *(Appendix D: Logs and Forms)*
   a. Time body is picked up at the scene;
   b. Time body arrives at the morgue;
   c. Names of driver and assistant;
5. Be available for other duties as needed; and
6. Be physically capable of moving human remains.

K. Security Team Supervisor.

1. Designated by and coordinates with the Chief Medical Investigator (Scene Supervisor );
2. Coordinates and directs security team;
3. Coordinates with law enforcement;
4. Establishes perimeter security around the scene;
5. Establishes entry and exit point to scene for all personnel and equipment;
6. Establishes protocol for checking identity, confirming and documenting credentials, authorization, and purpose of all persons and equipment entering and leaving the scene; and
7. Establishes protocol in cooperation with law enforcement for removal of unauthorized individuals.

## VIII – MORGUE / EXAMINATION CENTER

This material applies in part to both the Temporary Morgue and the Morgue/Examination Center. The DMORT web site (www.DMORT.org) contains suggestions for equipment and supplies.

A. Equipment: Early considerations.
   1. Site selection based on the findings of the Evaluation Team
   2. Security/ID badges; different colors reference function and access
   3. Use the unique mass fatality numbering system which is separate from the usual case numeric system in the Medical Examiner's Tracking System (METS).
   4. Refrigerated trucks with ramps to allow access and egress
   5. Protective clothing - gloves, scrubs, aprons, shoes, shoe covers, masks, coveralls, headwear, respirators
   6. Communications - telephones, radios, fax, PA (paging systems); local cell operators may designate a specific reserved air wave.
   7. Computers – programs and operators – all electronic files (including WIN ID, supplies, tracking, etc.) should be backed up daily.
   8. Records/Forms
      a. Personnel log including name, agency, employee/volunteer number, and in and out time.
   9. Morgue/Examination Center Tracking Registrar
      a. Antemortem and postmortem formats and forms
      b. Entry operators/Data analysts
   10. Office equipment and supplies – copiers, typewriters, log books, etc…
   11. Disaster Victim Packet – should contain all forms and paperwork necessary for every examination station
   12. Station Processing Plan – flexible to fit the situation
   13. Worker Safety and Comfort Supplies
      a. Healthcare provisions in place
      b. Immunization records
      c. Rest areas including toilet facilities
      d. Nutrition needs
      e. Critical Incident Stress Debriefing

B. Morgue Supervisor (Associate Medical Examiner )
   1. Supervises all morgue stations and personnel;
   2. Ensures that provisions are in place for the health and safety of the workers;
   3. Coordinates equipment and supplies as needed with Equipment/Supply Officer;
   4. Coordinates transportation of bodies into and out of the morgue;
   5. Directs and coordinates examination and identification of human remains;
   6. Tracks and coordinates storage of unidentified remains; and
   7. Reports to and keeps the Chief ME informed of the situation at the Morgue.

C. Morgue Accounting Registrar
   1. Maintain a list identifying all labor, supplies and equipment, including the hours and location of use;
   2. Record replenishment and billing information; and
   3. Arrange for data entry into the total record system report for the SCMEO Accounting Technician II.

D. Station System and Personnel
   1. Personnel: Body Receiving -Tracking Registrar
   2. Registration in Body Receiving Area
      a. Collect DMORT Transportation Log.
      b. Use Morgue Admission Log or like document to log receipt of each sealed bag.
      c. Verify that the assigned case numbers are properly documented on the sealed remains and in the log.
      d. Log in scene number: date, time, and transporter's name.
      e. Audit intake log to transport log to ensure all case numbers are received and logged
      f. Assign permanent body tracker
         i. Assigned to the body when it is brought to the morgue
         ii. Stays with the body throughout the process
         iii. Ensures that the body completes the process and does not skip a step
         iv. Ensures that the documentation is complete.
      g. Transfer the chart and all required documentation (Disaster Victim Packet) to the individual tracker.

3. Screening Station. (Examination of personal effects and clothing documentation/anatomic charting/further evidence collection). This is the point at which a decision can be made for a specimen (body part, fragmentary remains, partial bodies) to take a longer path through all subsequent stations or a shorter path with an examination at the morphology station and DNA only retrieved. (As a safety precaution, x-rays may be required prior to processing the remains.)

   a. Personnel needed:
      i. Medical Examiner;

ii. Medical Examiner's assistant;
iii. Scribe;
iv. Photographer and assistant;
v. Personal Effects Technician;
vi. Evidence Technician;
vii. Anthropology consultant; and
viii. X-ray technician, if pre-entry x-rays are required
ix. Bomb Tech or other specialist as indicated.

b. Initial x-ray, if required as safety precaution.
c. Initial photography.
d. Document clothing and personal effects.
e. Collect evidence, if appropriate
f. Remove and package clothing.
g. Complete necessary forms and return to tracker. All paperwork generated at this station (Disaster Victim Packet) must be placed in the case file to go with the tracker and body to the next station. This procedure is repeated at every station.

4. Print Station (finger, palm, foot)
   a. Personnel: Print Specialist – Local Law Enforcement, FBI Disaster Squad
   b. Use the digital fingerprint equipment;
   c. Print all bodies (and printable body parts);
   d. Complete proper documentary form;
   e. Fingers or hands removed only at the discretion of the Chief Medical Examiner. If removed– place in a properly identified container and place them back with the body after processing.

5. Radiology/X-ray Station -- Full body x-rays are mandatory.
   a. Personnel needed: X-ray technician/assistant
   b. Equipment needed: Portable x-ray units, film and developers
   c. Log all films.
   d. Mark Morgue ID #
   e. Mark Date/time of radiograph.
   f. Mark Radiograph #
   g. List number of films taken
   h. Mark the initials or signature of technician

6. Dental Station
   a. Personnel needed:
      i. Odontologist (may be assisted by dentists with forensic training);
      ii. Dental assistant;
      iii. Photographer;
      iv. Evidence technician;
      v. Scribe; and
      vi. A bomb technician or other specialist as indicated may be needed here.
   b. Digital Dental X-rays

c. Charting
d. Immediately enter data into WIN ID II (2002)

7. Autopsy Station.
   a. The decision to do complete or partial autopsies resides with the Chief Medical Examiner who is responsible for body processing and death certification. Some reasons for complete autopsies:
      i. Homicides – terrorism
      ii. Indeterminate manner of death
      iii. Flight crews – the same pathologist should do all members, if possible.
      iv. Unidentified remains
      v. Federal request
   b. Personnel needed:
      i. Forensic pathologist(s)
      ii. Autopsy assistant(s)
      iii. Evidence technician(s)
      iv. Bomb tech or other specialist as indicated
      v. Scribe
      vi. Photographer
      vii. Lab technician
   c. Clean and photograph the body.
   d. Examination
      i. Complete standard protocol (body view at minimum)
      ii. Injuries
      iii. Identifying marks
      iv. Retain necessary samples, including DNA
      v. Confirm identification
   e. Prepare body for release
   f. Review and authorize for release by Chief ME or designee prior to release
   g. DNA (4 ml blood in a purple top tube; dried blood on filter paper; 5 – 10 gm skeletal muscle, spleen, liver, bone, and/or teeth). Requires proper documentation and transmission.
   h. Evidence collection continues
   i. Victim Identification Profile (VIP)/DMORT Program, Pathology examination of partial or complete remains)
   j. Documentary forms to the tracker
   k. Histology specimens to the lab tech
   l. Toxicology specimens to lab tech for transmission. The FAA “ToxBox” should be used in cases of flight crew fatalities.

8. Anthropology/Morphology Station
   a. Personnel needed:
      i. Anthropologist
      ii. Anthropology assistant
      iii. Scribe
      iv. Evidence Technician

v. Photographer
vi. Radiographer
vii. Forensic pathologist

b. Fragmented, incomplete, charred, commingled remains
c. Documentation to the tracker with the remains
d. If a bone section or the like is retained, place it in a properly identified container. If it is a specimen for DNA, for example, it is to be properly documented and transmitted to a laboratory technician.

9. Body Storage
   a. Individual tracker returns the body to the receiving area.
   b. The body or part, with the direction of the receiving /tracking registrar is transferred to the appropriate secure designated "processed" refrigerated area and documented. The refrigerated area must be fully staffed with receivers and security.
   c. The Examination Center Tracking Registrar receives the Victim Disaster Packet from the tracker and assures proper transfer to the Records Management Team.
   d. Special storage sites should be designated for specimens such as DNA & Toxicology.

10. Morgue Records Management Team
   a. Personnel needed:
      i. Supervisor/ Registrar
      ii. Computer entry clerks
      iii. Data clerks
      iv. File clerks
      v. Security
      vi. Communication clerks – radio, telephone, e-mail and fax from other sites (scene, family assistance center, command post)
   b. Establish tracking procedures for files
   c. Establish back-up protocols for computer files

## IX. LONG TERM EXAMINATION / "SIFTING" SITE

A. In any mass fatality event in which there is extensive property destruction, the need for a long-term off-site examination center will exist. SCMEO will provide support to the operation of this site as long as it is required for the purposes of locating and identifying human remains.

B. Site Selection. The site should be secure, accessible, and well away from the other sites of operation.

C. Equipment

1. Storage for evidence
2. Refrigeration
3. Communication
4. Protective gear
5. Worker safety and comfort supplies
   a. Health care
   b. Rest areas including toilet facilities
   c. Nutrition needs
   d. Critical incident stress debriefing
   e. Tent
6. Heavy duty equipment for debris removal and disposition
7. Transportation services for body parts and evidence (to the examination center)
8. Transportation services for personnel
9. Sifting grids, tools, wheelbarrows, etc…

D. Personnel
   1. Anthropologist
   2. Anthropology assistant
   3. Scribe
   4. Tracking Registrar – proper transmission and entry of postmortem data
   5. Photographer
   6. Bomb tech or other specialists, as indicated
   7. Supply officer
   8. Pathology, radiology and odontology services remain available at the Examination Center and, if needed, at any long term sifting site
   9. Security – 24 hour for as long as operational
   10. Workers capable of assisting with significant physical labor demands

E. This site will likely remain functional well after the scene, Examination Center, and Family Assistance Center are closed.

## X. FAMILY ASSISTANCE CENTER (FAC)

A. Purpose of the Family Assistance Center

Immediately after a mass fatality, families and friends will gravitate to the incident site and the hospitals to find their loved one or obtain information about their loved one. They will need a place to go to obtain reliable/official information, assistance, food and shelter. Opening a family assistance center immediately and starting with basic services is critical to meeting families' needs and to demonstrate to the public that there is some semblance of order, despite the disaster circumstances.

The Medical Examiner's Office will need to mobilize the appropriate resources to open a family assistance center in addition to managing the incident with the help of the Department of Emergency Management and other regional resources.

B. Criteria and resources that may be necessary for the FAC
   1. Site Selection
      a. Functional for the specific incident.
      b. Close to the actual scene, but not at the site of the incident.
      c. Easily accessible for families.
      d. Adequate parking.
   2. Security
      a. Sheltering families from possible media intrusion.
      b. Secure parking lot, inside, and outside the FAC.
      c. Use of military personnel, as well as police.
      d. Staff/volunteer processing center.
   3. Transportation Services
      a. Secure, sensitive, and professional.
      b. Knowledgeable of the area.
      c. Serve family, friends, and staff needs.
   4. Communication Specialists
      a. Telephone services for the Center
      b. Referring media inquiries to the FAC Team Leader for addressing at the daily briefings.
   5. Support Services
      a. Red Cross/Salvation Army/other service organizations
      b. Communication companies
      c. Food services
      d. Religious services
      e. Mental health support
      f. Physical health support
      g. Massage therapy/chiropractic
      h. Site support – Janitorial/Plumbing/Electrical
      i. Translators and Embassy and Consulate representatives when international victims are involved.

C. Certain functions of the FAC are essential to and under the control of the SCMEO:
   1. The FAC shall be the only authorized site to collect information on missing persons via interview or password accessible website. This will allow strict control over which agencies/personnel may accept reports on missing persons, what information is collected, who interviews the families on personal characteristics of missing/deceased victims of disasters, and who may receive the information. This will also prevent confusion among families and officials, prevent agencies from duplicating efforts and prevent the inadvertent provision of conflicting information.
   2. Identification and access to information shall be limited to next-of-kin or a designated person assigned the password. The next-of-kin or designee should be fingerprinted for security and fraud prevention.
   3. The DMORT Victim Identification Form shall be used for information collection and to promote interoperability.

D. The SCME is responsible for family assistance for all mass fatality incidents, except in the case of commercial airline and some transportation accidents. Due to the demands on the SCME, the SCMEO will designate a lead organization to manage and coordinate joint family assistance and work with that organization to ensure that family assistance is provided..
   1. In the case of aviation disasters, the National Transportation Safety Board (NTSB) requires the airline involved to set up the FAC. DMORT has members assigned to this "go team".
   2. In the case of non-aviation disaster, the Deputy Director of the SCMEO may conduct the initial set-up of the FAC pending the designation of a lead agency/organization to lead and manage a Joint Family Assistance Center (JFAC) plan of operations and coordinated response.
   3. The JFAC Management Team should meet daily and include the JFAC Officer in Charge (OIC), Deputy OIC, the SCMEO and County OIC, the SCMEO Deputy Director, and representatives of organizations providing services (e.g., Social Services Agency, Mental Health, DMORT, American Red Cross, nonprofit organizations, State Department, Department of Justice, etc.). Team Leaders representing their service areas, will also participate as needed.
   4. The JFAC Officer in Charge will coordinate all family assistance services and attend/participate in family briefings.

A. The SCMEO Deputy Director shall:
   1. Initiate the set-up of the FAC.
   2. Set up and supervise SCMEO functions at the FAC;
   3. Report to and assist the Chief Medical Examiner with family briefings and overseeing the antemortem data collection and death notifications.
   4. Participate as a member of the JFAC Management Team.
   5. Arrange for outside personnel from the local Chaplain Support Services and Washington Funeral Directors' Association to assist with SCMEO functions.
   6. Coordinate with DEM to obtain professional personnel and volunteers to perform non-SCMEO functions and services.
   7. Monitor human remains recovery operations and morgue operations as necessary to provide input for daily briefings.
   8. Explain and provide information regarding SCMEO processes, such as identification, personal effects, and notification, to ensure that staff and volunteers are correctly informed and able to answer families' questions.
   9. Coordinate with the Department of Information Services to set up an FAC information and communication system.
   10. Serve as SCMEO Team Leader/Coordinator.

C. SCMEO Functions at the FAC
   1. The SCMEO Team Leader/Coordinator (Deputy Director or designee) shall:
      a. Establish ante mortem data acquisition and entry plan
      b. Assign a specific person (Medical Examiner Representative) for each family.

c. Arrange for briefings (at least daily) with families to provide them with current and timely information on the progress of the operation at the incident site and the morgue.
d. Arrange for daily briefings with media in a secure area away from friends and family and only after the family briefings are completed.
e. Establish and supervise death notification procedures with medical, psychological, and religious personnel.
f. Coordinate family transportation and security plans
g. Coordinate roles of SCMEO family assistance team members
h. Coordinate relations with outside agencies
i. Serve as a member of the death notification team
j. Provide for critical incident stress debriefing
k. Coordinate operations with Accounting Registrar to ensure the identification and tracking of hired and volunteer personnel, their hours worked, supplies, and equipment used in response.

2. Request the Snohomish County Department of Information Services and EOC Logistics to work together to set up, manage, and provide technical support for a FAC information and communications systems.
   a. The system needs to track all necessary information systems equipment and supplies to support the FAC (computers and software programs, etc.).
   b. Oversee distribution, installation, maintenance and recovery of computer equipment.
   c. Create a centralized database management system to reduce duplication of effort, minimize the potential for errors, and improve response time in retrieving essential information. This will include:
      i. System for collecting victim antemortem information with capacity to communicate with the Morgue Information Resources Center.
      ii. System for recording services provided to family members by service team members.
      iii. System to maintain accurate records of staff and volunteer hours, supplies and equipment, food, and donations.
   d. Provide technical support, including computer and software installation and services, maintenance, telecommunication lines, Internet/e-mail access, and development of database programs.
   e. Create and manage Web sites, e.g., for families to access and/or for the public to access information on the recovery effort (coordinate with the Joint Information Center).
3. Assign Medical Examiner Representatives who will serve as liaisons, collecting and responding to general inquiries. If possible one representative will be assigned to each family and use of outside personnel familiar with ME operations is desirable.
4. Assign the family interview lead and interview personnel who will serve to collect and document ante mortem data. If trained Medical Investigators are not available, use others familiar with interview techniques, e.g. DMORT personnel.
5. Assign a records supervisor, typists, and data entry personnel who will perform ante mortem data entry for transfer to the Morgue/Examination Center

6. Oversee the communications with families in regard to death notification, the procedure for release of the body, identified and unidentified partial remains, and effects
    a. All families should be counseled with regard to their wishes for disposal in the event that additional body parts may be identified. Their decision must be recorded on an appropriate form.
    b. Notification of death is conducted only after positive identification has been established by the ID Team and approved by the Chief Medical Examiner.
    c. Notification of death shall be conducted according to an established protocol, preferably by a Death Notification Team which may include a representative of the SCMEO, an experienced fire or police chaplain, a crisis counselor, and/or clergy.
    d. A release authorization form (regarding notification of recovery of additional tissues) should be completed and placed in the Victim Disaster Packet.
    e. Associated personal effects not deemed to be evidence should be released with the body and documented according to the standard operating procedure of the SCMEO.
    f. Unassociated personal effects may be handled through a contract with a recovered property company (i.e. Kenyon International)
    g. Unidentified body parts will be documented and stored as “common tissue”. Subsequent disposal will be the responsibility of the SCMEO. This procedure will likely be established through consultation with victims groups and establishing a group consensus consistent with local regulations and resources.
    h. A death certificate should be released to the funeral home with any remains. (See also Section XII. G – Death Certificates)
    i. A release log will be kept separately to document the overall process.

## XI. LOGISTICS

A. The Logistics Team is responsible for the operation of the logistics section, including the acquisition, storage, issue, and accountability of all supplies and equipment necessary to support the operation. The National Disaster Medical System (NDMS) has supplemental programs which can be put in place.

B. Logistics Team Leader
    1. Will work with EOC Logistics on the acquisition, storage, issue, and accountability of all supplies, equipment, facilities, personnel and services necessary to support MFI response
    2. Will monitor the status of all procurement actions.
    3. Will hand-carry, as necessary, all high-priority supply actions.
    4. Will maintain expense data, accountability documents, procurement documents, and other information pertaining to the logistics operation.
    5. Will insure that the logistics section is staffed at all times during operating hours.
    6. Will insure that personnel logs including name, agency, identification number and in-and-out times are maintained at all sites of operation.

C. Supply Clerks
Will perform duties assigned by the team leader to include, but not limited to, staffing the logistics section of the morgue, making supply runs, preparing supply documents, issuing supplies and equipment etc.

## XII – IDENTIFICATION and DEATH CERTIFICATION

**A. The final determination of positive identification must be approved by the Medical Examiner for all deaths as a result of a disaster that occur within Snohomish County.**

B. Identification Supervisor should have experience in forensic odontology, anthropology, or pathology and will ensure that scientific methods are used to establish identity and that proper documentation is completed. Identification Supervisor reviews all identifications. If body remains unidentified, ensures that the body is properly marked, placed in separate storage and appropriate records and samples are retained for future reference.

C. I.D. Team
1. Composition: Pathologist, dentist, anthropologist, print technician, and investigative staff.
2. Must meet at the end of each working day.
3. Review all proposed positive identifications.
4. Make recommendations daily to the ME.

D. Positive identifications should be transferred to the Family Assistance Center for action by the Death Notification Team.

E. All notification procedures are the responsibility of the ME.

F. Possible identification methods may include:
1. DNA
2. Prints
3. Dental
4. Medical radiography
5. Distinctive physical characteristics
6. Serial numbers on permanently installed medical devices
7. Visual in some cases (Personal effects do not constitute a true means of identification).

G. Death Certificates
1. Issued according to procedures normally in place and as directed by the SCMEO.

2. Issuing of death certificates in situations in which there is an absence of positive physical forensic scientific identification is a responsibility solely of the SCMEO in conjunction with appropriate legal and public health authorities.

## XIII – LARGE SCALE AND/OR GEOGRAPHICALLY DISPERSED MASS FATALITIES

1. Adaptations to the Mass Fatality Plan may be necessary in response a large scale or geographically dispersed mass fatality event such as deaths from infectious disease, earthquake, nuclear, biological, chemical or other natural or man-made mass fatality event.
2. Transportation and infrastructure may be destroyed and inoperable.
3. Corresponding reduction in response resources or inability to mobilize.
4. Local hospitals, emergency responders (fire, law enforcement, emergency medical response), funeral directors, vital records, the Health District and State Health Department, social services and others may be overwhelmed.
5. Need to augment body storage capacity of hospitals, funeral homes and cemeteries with refrigerated holding capacity.
6. Decentralized collection and storage may be necessary:
   a. Coordinate with municipalities to identify regional locations and/or refrigerated truck locations for storing and cooling bodies until released by the ME and next of kin can claim them.
   b. Coordinate with law enforcement for local investigation, documentation, identification, tracking, collection and transport to storage.
7. Wide spread fear and panic (hysteria) may result in dispatchers being overwhelmed by urgent reports and inquiries.
8. Establish FAC.
9. Issue public communications to provide information, explain process and provide public direction.
10. Shift SCMEO resources towards performing only essential fatality processing functions:
    a. Recovery
    b. Abbreviated processing to secure decedent's identification without sacrificing accuracy
    c. Temporary storage
    d. Tracking
11. Work with the County Executive, public health, religious community, funeral directors and other public and private agencies to modify public expectations regarding fatality management operations and final disposition.

## XIV– CREDENTIALING

Individuals working in any area of the SCMEO operations are required to pass the basic level of credential screening. The credentialing criteria will include:

-Name

-Address
-Agency
-Social Security Number
-Educational degree
-Certification or license
-Employment Information
-Other skills and experience
-Three References
-Volunteer information (current and previous)
-Interview
-Signed affirmation and authorization for background check
-Background check and criminal history
-Fingerprint
-Photograph
-Documentation of identity
    -copy of drivers license
    -copy of agency ID

All applicants need to understand that

- they will be required to sign a Volunteer Service Agreement,
- the assigned service may involve potentially dangerous and uncomfortable situations,
- no guarantee is provided that their services will be requested for an emergency or disaster deployment, and
- no soliciting will be tolerated and no personal benefit or advantage can be gained as a result of serving during an emergency or disaster deployment.

## XV – MASS FATALITIES RESOURCE LIST

Methods for twenty-four hour, seven days a week (24/7) contact shall be made available and kept up to date by quarterly review of local and federal resources necessary for the successful management of a mass fatality incident.

It is the responsibility of the SCMEO to see that all necessary logistical support services for any consultants (such as DMORT or USAR) are put in place.

The SCMEO Mass Fatality Resource Lists are attached in the following Appendixes:

*Appendix A Telephone Lists*
*Appendix B Forms*
*Appendix C Scene Package*
*Appendix D Transport Package*

*Appendix E Morgue Package*
*Appendix F Family Assistance Package*
*Appendix G Communications with Families and Public*
*Appendix H Personal Preparedness*

Potential MFI Morgue sites:

1. The existing SCMEO. Refrigerated trucks may be located in the fenced parking area. Three autopsy stations could be used for the MFI examination. The decomposition/infectious disease autopsy room will be used for routine caseload.

2. Airplane hangars may be used as secured facilities with helicopter access. Request should be initiated through DEM. Call dispatch and ask for the DEM duty officer.

    a. Snohomish County Airport (Paine Field)
    Dave Waggoner (425) 388-5100
    3220 100th Street SW
    Everett, WA 98204
    Phone: (425) 353-2110 FAX (425) 355-9883

    b. Harvey Field
    9900 Airport Way
    Snohomish, WA 98296
    Phone: (360) 568-1541 FAX: (360) 568-6034

    c. Arlington Municipal Airport.
    Arlington, WA 98223
    Phone: (360) 403-3421

    d. Firstair Field
    Monroe, WA 98272
    Phone (360) 794-8570

    e. Darrington Municipal Airport (one hangar)
    Darrington, WA
    Phone: (360) 436-1454 Manager
    Phone: (360) 436-1131 Town of Darrington

    f. Port of Everett
    Marine Drive
    Everett, WA
    Phone: (800)-729-7678

# SECTION 4.0
# Contaminated Remains

## 4.1 Introduction

1. Hazardous materials may be present at a mass-fatality incident (MFI). The mitigation of environmental hazards and decontamination of human remains may be required.

    a. The hazardous materials may be the cause of some mass-fatality incidents.

        (1) Hazardous-materials incidents at fixed facilities or on transportation routes may contaminate a large number of people with lethal doses of the material.
        (2) Terrorists may use chemical, biological, or radiological weapons (Weapons of Mass Destruction) against a heavily populated area or large event.

    b. During other incidents, bodies may become contaminated as a result of the incident even though the contamination was not the cause of the fatalities (e.g., an airplane crash can leave bodies contaminated with jet fuel).

2. Contaminated incident scenes and remains will require special considerations for search and recovery and mortuary services.
3. Chemical, biological and radiological/nuclear materials are classified as weapons of mass destruction.
4. The Snohomish County Medical Examiner's Office (SCMEO) personnel must be familiar with mitigation and decontamination procedures and the possible impacts on evidence collection and the sequence of death investigation conducted by the SCMEO.

## 4.2 Definitions

5. *Agent*. The chemical, biological, or radiological entity(ies) used in a terrorist attack, involved in an unintentional event causing death, or released as a result of the incident.
6. *Decontamination*. The process of removing or chemically degrading an agent on the body surface to a level that poses little or no risk to others in proximity to that surface.
7. *Hot Zone*. The area contaminated by the agent and/or immediately surrounding such an area and extending far enough to prevent the agent from being released to personnel outside the zone. This zone is also referred to as

exclusion zone, red zone, or restricted zone (US DOT, 2000 North American Emergency Response Guidebook). Access is limited and controlled.

8. *Warm Zone*. The area surrounding the Hot Zone which may include areas used for decontamination, in which hazards are expected to be controlled and/or mitigated. Access is limited and controlled.
9. *Cold Zone*. Any area outside of the Hot and Warm Zones in which bodily or other processing is carried out but hazards have been controlled or abated, eliminating or significantly reducing risks to workers. Access to the Cold Zone is also controlled and limited to authorized personnel.
10. *Total Station*. An electronic measuring system that documents angles and distances for mapping of traffic accidents and crime scene investigations.

## 4.3 Potential Agents

The Centers for Disease Control and Prevention has developed a list of critical chemical and biologic agents that may be used by terrorists.

1. Chemical agents

- **Nerve agents:** Tabun, Sarin, Soman, GF, and VX
- **Blood agents:** Hydrogen cyanide and cyanogen chloride
- **Blister agents:** Lewisite, nitrogen and sulfur mustards and phosgene oxime
- **Heavy metals:** Arsenic, lead, mercury
- **Volatile toxins:** Benzene, chloroform, trihalomethanes
- **Pulmonary agents**: Phosgene, chlorine, vinyl chloride
- **Incapacitating agents**: BZ (3-quinuclidinyl benzilate), pesticides, dioxins, furans, PCBs
- **Explosives**: Ammonium nitrate combined with fuel oil
- **Flammable gases and liquids**: Gasoline, propane
- **Poisonous industrial gases, liquids, solids**: Cyanides, nitriles
- **Corrosive industrial acids and bases**: Nitric acid, sulfuric acid

2. Biologic Agents

**Category A (High-level risk**): Smallpox, anthrax, plague, botulism, tularemia, Filoviruses causing hemorrhagic fevers, such as Ebola and Marburg, and Arenaviruses causing hemorrhagic fevers, such as Lassa and Junin viruses.

- **Category B:** Q-Fever, brucellosis, glanders, alphaviruses causing encephalitis, ricin toxin, epsilon toxin from *Clostridium perfringens*, *Staphylococcus* enterotoxin B, *Salmonella* species, *Shigella dysenteriae*, *E Coli* O157:H7, *Vibrio cholerae*, and *Cryptosporidium parvum*
- **Category C:** Nipah Virus, Hantaviruses, Tick-borne hemorrhagic fever and encephalitis viruses, Yellow Fever virus, multidrug-resistant TB.

Although chemical agents are more likely than biological agents to require decontamination procedures, some biologic agents also may require such procedures. Biologic agents that involve spores (such as anthrax), external lesions (such as smallpox), or infected secretions are some examples.

3. Radiologic Agents:

Radiologic agents may be used in terrorist attacks. The most important in terms of decontamination is the so-called “dirty bomb” in which radioactive residue may exist on bodily surfaces and clothing and may be amenable to removal using decontamination procedures.

## 4.4 Special Considerations

1. The SCMEO is not equipped to handle hazardous materials and will not enter a contaminated death scene to recover bodies/body parts until it is safe to enter.
2. In the event of a terrorist attack or unintentional event with fatalities involving biological, chemical or radiological (BCR) agents, decontamination procedures may require the expertise of fully trained and qualified responders, such as hazardous materials (HazMat) technicians.
3. The Snohomish County HAZ-MAT and/or Everett Fire HAZ-MAT team, working for the authority having jurisdiction, will be responsible for the management of the HAZ-MAT situation.

## 4.5 Incident Command

1. It is anticipated that the incident will be managed using the Incident Command System (ICS) with a structured hierarchy of leaders who report to the single Incident Commander.
2. The Incident Commander, in conjunction with needed consultants, will determine the level of protective gear and other precautions required, and who will enter and have access to the Hot Zone and other zones.
3. The SCMEO will communicate with the Incident Commander and those working in the Hot Zone and Warm Zone to ensure that evidence and information of importance to the SCMEO is preserved and documented.

## 4.6 Personal Protective Equipment (PPE)

1. (HAZMAT Personnel) Until the need for lesser protection is established, it must be assumed that the highest level of personal protective gear needs to be worn in the Hot Zone. This should include:
   - A full body suit that is resistant to chemicals and biological agents.
   - Self-contained breathing units, as indicated by identification of specific suspect agents and degree of exposure in the Warm and Cold Zones, cartridge respirators with HEPA and/or charcoal filtration or lesser forms of respiratory protection as indicated (based on circumstances and the agent involved). Such phasing would be determined by the Incident Commander in consultation with appropriate experts.

2. In any case, even with low risk, the minimum protective equipment should include:
   - A full body suit that can be removed at the site

- Gloves, appropriate respirators (masks), and face shields or eye cover as dictated by the suspected agent. A full face mask will protect against inhalation of radioactive dust.

3. After decontamination is accomplished (see below), routine personal protective equipment should suffice for most agents (assuming that decontamination has been effective).
   - Level A: PPE utilizes a self-contained breathing apparatus, a fully encapsulating chemical resistant suit, and inner chemical/biological resistant hand covers and boots or shoes.
   - Level B: PPE utilizes a single or 2-piece chemical suit that need not be fully encapsulating, and also employs a self contained breathing apparatus. This gear is similar to standard fire-fighting gear.
   - Level B: PPE utilizes a full-face air-purifying canister-equipped respirator, full body chemical-resistant suit, inner and outer chemical resistant gloves, and resistant boots/shoes. Level C includes not only the full-face air-purifying canister-equipped respirators but also powered air-purifying respirators (PAPRs). The PAPRs operate and deliver filtered air under positive pressure and the non-powered air purifying respirators (NAPRs) depend on the efforts of the wearer and operate under negative pressure. The filters used are variable and the correct filters are needed to filter particulate matter, chemicals, organic vapors, or gases.
   - Level C: PPE utilizes simple over-garments, preferably water-resistant, to provide a physical barrier to cover the skin and clothing.

4. Only personnel who are fully trained in the proper use of personal protective equipment may enter contaminated areas; such personnel will usually consist of fully qualified HazMat technicians. Medical Examiner personnel are not trained in the use of Level A or B equipment.
5. HazMat personnel, through mutual agreement with the SCME, may perform necessary duties on-scene at the direction of the Chief Medical Examiner.
6. In most cases where SCMEO personnel would be needed, Level B or Level C PPE will suffice. Level C will be adequate in most cases where decontamination or autopsy procedures are performed.
7. Level A and B PPE can be hot to wear and sight can be restricted. This is even more so for some Level C equipment such as PAPRs which can also impose problems with communication because of inability to hear or communicate with electronic devices such as radios. The air supply may last less than an hour. For these reasons, aside from any SCMEO personnel, multiple teams of workers trained in the use of PPE need to be available (and a “suited up” backup team needs to be ready) to replace workers whose air supply is exhausted, who are prone to being overcome by heat, or who may need emergency care due to injury or unforeseen complications. A “buddy system” of workers should be used.

## 4.7 Communication

All operational sites should include direct communication lines that are not subject to unwanted monitoring and the failures typical of radio and cell phone systems. Use of the latter two systems is acceptable but should not be relied upon without direct communication lines also in place. This may require the running of telephone or other hard wire or cable types.

## 4.8 Initial Scene Assessment

1. The initial assessment team at the scene should include a:
   - Trained HazMat Technician
   - Chief Medical Examiner, Associate Medical Examiner, and Chief Medical Investigator
   - Law Enforcement evidence technician
2. The fire department which serves the scene area— along with its associated HazMat team— will have (or can obtain) the necessary equipment, technology, and personnel to assess the scene for chemical and radiological hazards. Such equipment usually consists of:
   - Geiger counter or similar field devices capable of detecting gamma and beta radiation at levels as low as 1 millirem/hour. 1mrem/hr detection sensitivity is adequate for personal safety assessment, but more sensitive equipment may be needed to detect contamination above normal background of .01/mrem/hr.
   - Chemical detection units that can sample air
3. Chemical detection units into which chemical detection tickets (which can be touched to potentially contaminated surfaces) can be placed for chemical analysis – much like the detection units used at airports for detection of explosive residues. HazMat team members may not be familiar with the needs and usual practices of the SCMEO. This will require that the Medical Examiner will discuss and clarify with the HazMat the needs and roles of the SCMEO at the incident site before scene processing so that HazMat operations do not interfere with the needs of the Medical Examiner, and to ensure that HazMat personnel may be able to collect evidence on behalf of the Medical Examiner, if needed.
4. Biological detection. It is unlikely that a biological toxin or agent will first be detected at a scene where there are multiple deceased. Events involving biologicals will probably be detected based on the sequence and timing of events, common “syndromes,” tests performed on victims who become ill and have time to seek medical care, and autopsy findings. There is currently no way to quickly screen for a broad scope of biological agents or toxins at the scene.
5. Sensitivity/Specificity. Modern equipment is sensitive enough to detect most predictable chemical and radiological hazards. The methods, sensitivity, and specificity for detection of biological agents at scenes have not been established.

6. Critical levels. There are established and published criteria for various chemicals and other agents and the parts per million or millirems that impose risks over an 8-hour exposure. This information should be used when assessing whether special decontamination procedures will be needed and whether processed bodies have been rendered "safe."
7. Evidence. In the event that a biological, chemical or radiological agent is used, there will probably be enough evidence at the scene, in historical and circumstantial information, on clothing, and on or within the body (biologic organisms or toxins) that decontamination procedures will not significantly interfere with the collection of evidence needed by the Medical Examiner to determine the cause, manner, and circumstances of death. However, if there is a need for the Medical Examiner to collect evidence at the scene (such as swabs of residue on the skin), such evidence should be placed in glass containers—especially if a chemical agent is suspected—because some chemical agents can interact with plastic. If glass containers are used, they should be packaged in a secondary container (such as a metal tube) that will prevent breakage of the glass and allow for decontamination of the container. Evidence labels and all tags used for bodies, bags, and personal effects must be of a type that will not deteriorate or become illegible when subject to soap, water, bleach, or other chemicals. Embossed metal tags (or bracelets for bodies) may be required.

The SCMEO will work with the HazMat team to secure needed equipment and personnel to detect the type of hazard(s) that may exist at the scene, to determine whether decontamination procedures will be needed and, if needed, which type of procedures will be required.

## 4.9 In the Hot Zone

1. Some general procedures for the Hot Zone area include the following:
   a. If SCMEO personnel cannot enter the Hot Zone, HazMat personnel could prepare videotape of the scene area so death investigators can review it at another site.
   b. The area needs to be documented and photographed (or imaged) and mapped with GPS or other system before manipulation or movement so relative positions of bodies, parts and objects can be re-created
   c. Waterproof and chemical-resistant numbering tags or bracelets need to be placed on bodies, parts, and containers
   d. Loose items need to be collected and tagged so they are not lost during transport;
   e. Loose clothing and other non-human items can be collected in labeled, sealed containers such as paint cans which are not easily broken, are easily cleaned, and which will contain and preserve "volatile" substances; and
   f. An open wire mesh body litter can be used to bring bodies and other parts or items to an accessible point(s) at the edge of the Hot Zone so they may

be prepared for transport to the Dismount or Decontamination area (see below).

2. In the Hot Zone, the use of durable equipment should be minimized in favor of disposable alternatives. Information should be collected in a manner that avoids the use of paper documents at the work site and does not require person to person contact. Equipment and supplies in the Hot Zone should include:
   a. Appropriate personal protective equipment, donned in a clean and secure area with controlled access;
   b. Tags to label bodies, other items and containers as determined by the Medical Examiner;
   c. Communication devices to relay documentary information without the use of paper documents at the incident site;
   d. GPS instruments to record the location of bodies and other items;
   e. Digital cameras that, preferably, can transmit images to a nearby operations center; and
   f. Transport vehicles to transfer bodies and workers, if needed, to the edge of the Hot Zone or beyond.

## 4.10 The Dismount Area

The Dismount Area is where bodies (and clothing) are taken when removed from the Hot Zone or Hot Zone Margin for temporary holding or storage until decontamination procedures can occur. The Dismount area should be:

a. Located upwind from the incident site and close to decontamination area
b. Out of common view (e.g., behind temporary barriers)
c. Accessible via land transport vehicle, if possible
d. Equipped with lifts to assist with body movement
e. Cool, if possible, but not necessarily refrigerated unless lengthy delays are expected prior to decontamination. Refrigeration may be required, however, and may also provide a place to store bodies out of public view.
f. Covered (tent-like roof)
g. Protected against scavengers, vermin, and insects

## 4.11 Hot Zone Margin and Dismount Area

1. A decision will need to be made whether the Hot Zone Margin and Dismount Area (see above) will be at one location or in different locations. The decision will be made on the basis of the suspected agent and to some extent, geography and the setting.
2. At the Hot Zone Margin or Dismount Area, the following need to be available:
   a. Body bags (one for each body), humans remains pouches (if bodies are fragmented), and sealable containers such as paint cans for clothing and other smaller items
   b. Tags to label bodies, other items, and containers
   c. Transport vehicles to transfer bodies (and workers as needed) and items to the Dismount Area or decontamination area.

3. Clothing should be removed, containerized, and labeled at the site serving as the Dismount Area. If clothing is to be kept and not discarded after initial processing, it should be decontaminated before being transferred from the decontamination area. Jewelry and watches securely fixed to the body may be left in place. Bodies should be placed in labeled body bags. Body bags should not contain vinyl which is subject to degradation by certain chemical agents. (Use the military style body bags in the SCMEO inventory.)
4. Wallets and other identifying paperwork in the clothing should remain with the clothing for processing at the decontamination site. It may be useful to process apparently identifiable bodies as one group and those that cannot be readily identified as another.

## 4.12 Numbering System

1. The Medical Examiner's Tracking system (METS) has a separate auto-generated numbering system which shall be used for the identification and tracking Mass Fatality remains separate from routine caseload.
2. A unique Total Station or manual map/grid numbering system should be used at the scene for each body or separate body part. (The Washington State Patrol or Snohomish County Sheriff's Office may assist in forming a grid of the disaster area, using Total Station.) This unique location identification number will be entered into METS on the first page under the "Incident/Injury" section in a "Total Station #" box.

## 4.13 Basics of Decontamination

1. Decontamination consists of rinsing, washing, or immersing the body (or clothing or other items) to remove adherent substances and provide some bactericidal action. Basically, decontamination either removes, neutralizes, or degrades the offending agent. In almost all instances, a 1% to 2% bleach (hypochlorite) solution is more than adequate to remove, hydrolyze, or neutralize the offending agent.
2. Decontamination of clothing and other items should be considered after forensic investigation requirements have been met. If decontamination of such items poses additional risks to personnel, it may be best to seal items in containers—after adequate documentation and forensic analysis—for disposal. In many instances, simple removal of the clothing (after photography) will eliminate most or all contaminants.
3. Decontamination may be accomplished by:
   a. Removal of clothing
   b. Manually washing and rinsing (probably best)
   c. Spraying with a soft spray that minimizes spatter and aerosolization
   d. Submersing the body or items in a tank, pit, or trench (the "soak" method)

4. .After a decontaminated body is placed in a container such as a body bag, the outside of the container should be decontaminated by washing or spraying. Duct tape may be used to seal the zipper area, if needed to prevent leakage.

5. In most instances, clothing will have been previously removed from bodies at the Hot Zone Margin or Dismount Area (after necessary documentation, tagging, and photographing). The clothing will then need to be decontaminated separately from the body, unless a decision is made to destroy clothing without decontamination. Separate decontamination procedures for clothing accomplishes several things:
   a. The unclothed body will be easier to decontaminate
   b. Initial manipulation of the clothing (which will probably have the highest extent of contamination because it covered the body) is done nearer to the Hot Zone which is already contaminated
   c. The packaged clothing will be easier to process and decontaminate under controlled circumstances
   d. The clothing and bodies may be sent to separate facilities for processing and documentation
   e. Personal effects may be more readily examined for identification purposes
6. Decontamination procedures shall be performed by HazMat technicians who are trained in decontamination procedures, and personal protective equipment.

## 4.14 The Decontamination Site

1. The decontamination site is where decontamination procedures are carried out. The site selected for decontamination should, if possible, have the following characteristics:
   a. A safe distance from the Dismount Area, and upwind from it, if possible,
   b. Far enough from the incident site that the Dismount Area may be placed between the Hot Zone margin and decontamination site,
   c. Ready access to fresh water supply or water transport vehicles,
   d. Reasonably accessible via ground transport,
   e. Large enough and flat enough to accommodate large tents or tent-like roofs,
   f. Have a sloped area of 1:12 minimum slope to allow for water runoff,
   g. Have ground cover or artificial cover or turf that can serve as a sump to absorb water and control its runoff, and to avoid soiling of bodies with dirt and other ground debris,
   h. Enable the placement of ditches, drains, ponds or pools to control and direct water runoff, and
   i. Be close to electrical or fuel supplies (if generated power needs to be provided).

2. Minimum equipment and supplies at the decontamination site include:
   a. Bleach and fresh water (water from natural sources such as streams, rivers, and lakes may be used),
   b. Soft sponges and brushes made of non-nylon materials,

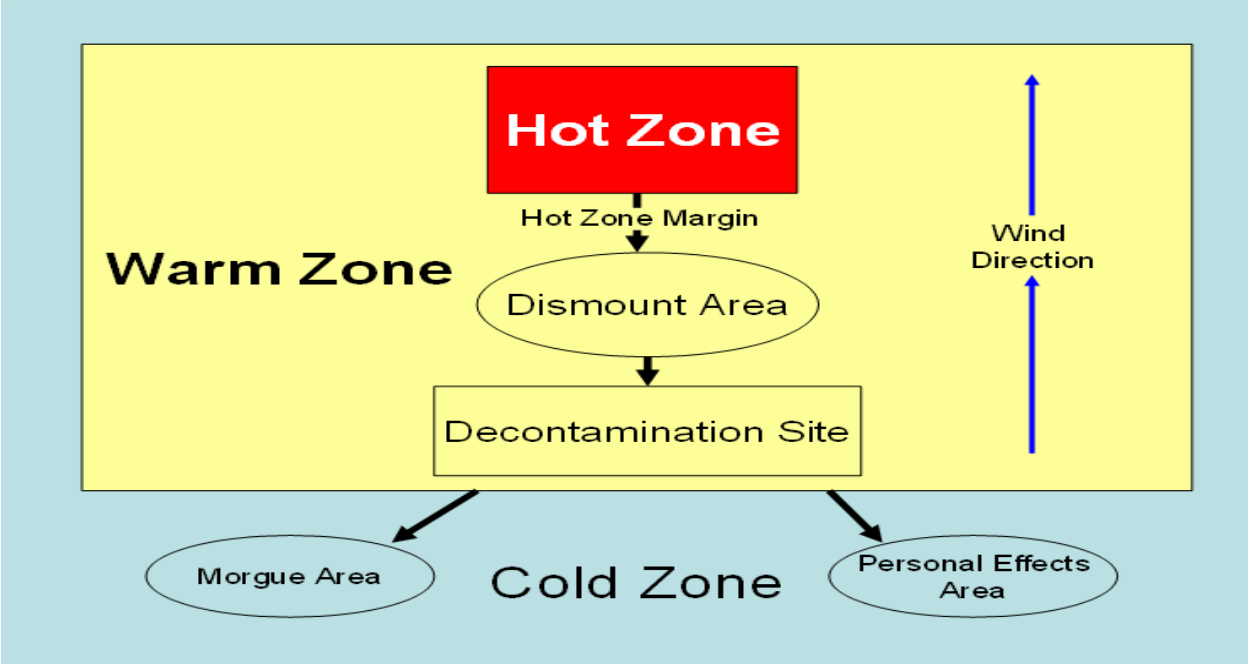
c. Pumps, hoses, and other devices capable of pumping bleach solution at the rate of normal water pressure (20 to 90 psi), and pumps capable of collecting runoff at a rate greater than or equal to water inflow rate,
d. Drums to mix solutions and hold collected runoff (if tank trucks are not available on site to collect runoff as it occurs),
e. Spray units to spray bodies with bleach solution if submersion is not required,
f. Tanks or pits large enough to submerse a body or clothing in bleach solution,
g. Personal protective equipment as dictated by the suspected agent(s)
h. Clean body bags (2 for each body),
i. Clean, sealable containers to hold clothing,
j. Tags for marking bodies and clothing with identification numbers,
k. Decontamination showers (soap and water for personnel after removal of protective equipment) and areas for workers,
l. Receptacles for discarded body bags, protective wear, and other items that can be transported and incinerated or otherwise disposed of as hazardous waste,
m. Chlorine monitor to ensure adequate bleach/chlorine concentration,
n. Clean and climate-controlled operations center with restroom facilities, showers, and changing area. This area should be separated from areas where disinfectants are sprayed and should be well-ventilated to ensure that unprotected personnel are not exposed to respiratory or other hazards.
o. Chemical detection unit (or Geiger Counter) to verify that decontamination was effective,
p. A station at which transport vehicle cargo areas may be decontaminated.

3. The decontamination area may be structured as three separate zones including red, yellow, and green. Contaminated bodies are in the red zone. Photographs can be taken here as bodies are received. The clothing can then be removed and additional photographs can then be taken before the body is moved. Having one photographer and one contaminated camera may be advisable. The body is then moved to the yellow zone where decontamination is performed using solutions and techniques that are suitable for the agent involved. After decontamination, chemical activity monitors or Geiger counters, depending on the incident, can be used to test the effectiveness of decontamination as bodies are prepared for transport to the green zone. If additional decontamination is needed, this is conducted in the yellow zone. Once a body arrives in the green zone, it can be double bagged or otherwise sealed for transport to the morgue facility.
4. The use of tanks and soaking may pose problems. There are possible splash risks and cross contamination. Further, maintaining the needed concentration of hypochlorite may be difficult.

5. Following decontamination, bodies and clothing are rinsed with water and should be double-bagged. The exterior of each bag should be decontaminated on all surfaces.

## 4.15 Summary of General Processing Flow

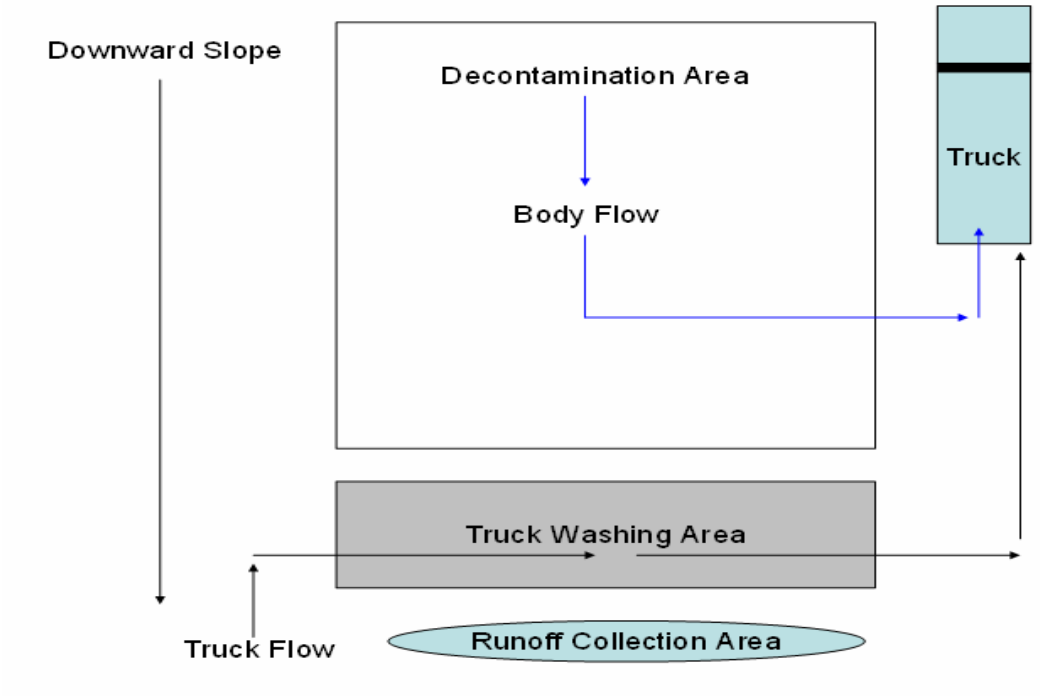
1. When decontamination is required, various processing areas need to be defined and strategically located. In addition to the Hot Zone, the following areas need to be established:
   a. Hot Zone Margin
   b. Warm Zone
      i. Dismount Area (where bodies are taken from the incident site in preparation for decontamination)
      ii. Decontamination Site (where bodies and clothing are actually decontaminated)
   c. Cold Zone Areas to include morgue and personal effects areas
   d. Morgue area (where bodies are taken for examination after decontamination)
   e. Personal Effects/Clothing Area (where clothing is taken for processing after decontamination. This may or may not be the same area as the morgue.)
2. Waste handling, including effluent from washing stations, and waste incineration or waste packaging for removal to off-site incineration also need to be considered when planning site operations and layout.
3. Schematically, the workflow may be depicted as:



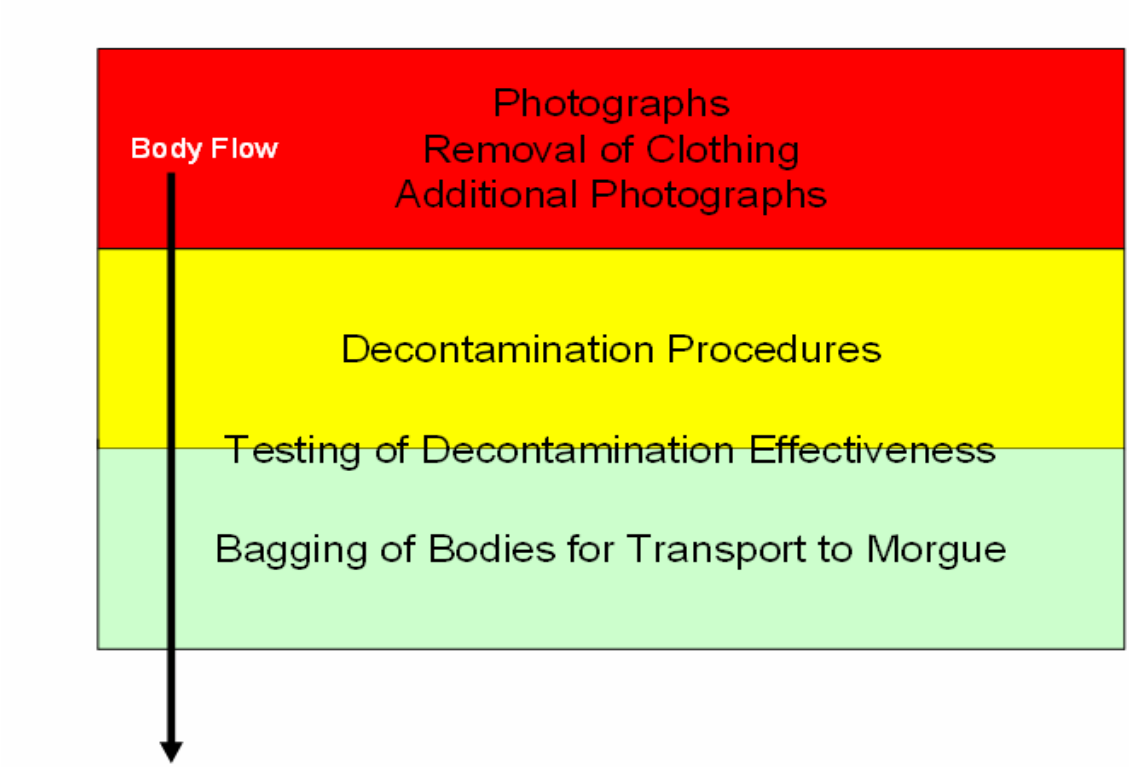
2. The distance between, and the specific locations of these areas depends on many factors including, but not limited to:
   a. Terrain
   b. Available facilities, supplies, fuel, power, and water
   c. Access
   d. Wind direction (Dismount area should be upwind from the incident site and the decontamination area should be upwind from the dismount area). Remember that wind direction can change and that procedures may need to be temporarily halted or relocated.

## 4.16 Transport to Dismount/Decontamination Areas

1. Bodies and other containerized items should be transported using land vehicles, when possible. The route between the Hot Zone and Dismount Area should be made inaccessible to all except those driving transport vehicles and any workers who must supply support services to the vehicles or drivers. To facilitate decontamination of transport vehicles, open, flat-bed trucks with low side walls and rear gate should be used. The truck bed cargo area should be decontaminated after each delivery of bodies, at a point between the decontamination area and the area where water runoff is collected (see diagram, below).
2. The following schematic shows a workable spatial relationship between the decontamination area. Note the locations of:
   a. area where the body storage truck may be placed;
   b. truck decontamination area; and
   c. runoff collection area.



1. Drivers should wear disposable protective suits and appropriate PPE, as dictated by the circumstances, and remain in their vehicles at all times except when preparing to leave duty and undergo decontamination. Those loading bodies onto transport vehicles at the incident site (or unloading bodies at the dismount area) should not leave their work sites until they are transported to the decontamination area at the end of their work shift or at other times, as needed, for gear changes or personal needs.
2. If air transport is required between the incident site and dismount/decontamination area, the type of aircraft will depend on available landing areas and their proximity. If helicopters are used, bodies may be transported on a suspended platform (or basket), but the helicopter should remain high enough above the platform (and ground) to minimize or eliminate wind (and spreading of the agent) from the rotors. Also, a body or item transported by air from the Hot Zone should be containerized and the outer container decontaminated before transport.
3. Railroad transport may be used if nearby. The location of the dismount area and decontamination site should be near the tracks if rail transport is utilized. Railroad has the advantage that refrigerated cars may be readily available and serve both purposes of transport and storage. Work areas may even be established in railroad cars.
4. The decontamination area itself can be conceptualized and schematically depicted as follows:



## 4.17 From the Decontamination Area to the Morgue and Personal Effects Areas

1. Procedures for the transport of decontaminated and containerized bodies and clothing are the same. If the morgue and personal effects processing location will be at the same facility, these items may be transported together in the same vehicle. If the bodies will be transported to one location and the personal effects and clothing to another, parallel systems can be established with one vehicle for clothing and personal effects and another for bodies.

2. At the decontamination site, a refrigerated truck may be used to store decontaminated, containerized bodies (and clothing). This truck can remain on site until the morgue area has been readied to receive and process bodies. At that time, the truck may be relocated to the morgue area property (or nearby area) where the truck can remain as an "in" cooler to store bodies as they subsequently arrive at the morgue area. A second refrigerated truck can be placed near the morgue area to store bodies after they have been processed at the morgue and undergone examination. A third refrigerated truck can be placed at the decontamination area to replace the original, if needed. Such a decision will be based on the anticipated number of bodies and their recovery and processing rate. If the number of bodies is small, or the recovery rate is expected to be slow, bodies may be transported from the decontamination area to the morgue area individually or a few at a time in smaller vehicles suitable for such purposes. Each time a vehicle returns from the morgue area to the decontamination site, the cargo area should be decontaminated before new bodies are placed in the cargo area.

## 4.18 Storage of Bodies Pre- and Post-Examination

The use of refrigerated trucks to store bodies prior to bodily examination and after bodily examination (separate trucks) may be helpful, even if a permanent autopsy facility is available with adequate storage for bodies. This minimizes the risk of contamination of the permanent facility and allows the continued use of the permanent facility to store bodies that continue to arrive due to routine case load. The interior and exterior of the trucks may be monitored to assess the effectiveness of decontamination procedures and to identify unsuspected contamination hazards.

## 4.19 Morgue-Autopsy Area

1. Whether or not the morgue area is a temporary or permanent facility, at the morgue area a station should exist at which the following can be accomplished for each body prior to its being taken into the autopsy area for examination:
    a. Placing body on a gurney or autopsy cart
    b. Washing of exterior container with bleach solution
    c. Removing and discarding the container into a biowaste receptacle for subsequent incineration or other required disposition

d. Washing or rinsing the body with water (or dilute bleach solution if the external aspect of the body appears to have been re-soiled during transport)
e. Tagging the body with METS identification number (if not already tagged)
f. Discharge of the runoff into a sanitary sewer (this should be safe if decontamination procedures were effective, plus, non-solid biowaste at autopsy is discharged into the same sanitary sewer system)
g. Transport of the body into the autopsy/examination area for examination without further storage in the morgue facility.

2. In some instances, it may be desirable to divide remains into two groups—those that will need specific examination at the morgue and those that will not— and store them separately to facilitate operations. In other instances, it may be feasible to conduct all needed aspects of bodily examination at or near the decontamination area. Doing so will minimize the need for separate morgue operations. Whether this can be accomplished will depend on the scope and nature of the incident. Other than cyanide, the risk of off-gassing to autopsy and morgue personnel is low or negligible if decontamination procedures have been properly carried out. For most respiratory and other chemical agents, what is left in the deceased body will not endanger morgue personnel.
3. In general, autopsies should be done on all cases if the case load and agent-specific biosafety constraints do not preclude doing so. With some diseases such as viral hemorrhagic fevers, autopsy may need to be limited to index cases or cases in which the findings or possible cause of death seems atypical in comparison to other cases in the incident. Minimal examination should consist of thorough external examination with written and photographic documentation, and the collection and processing of appropriate specimens and evidence.

## 4.20 Post-Examination Processing

1. After examination, the body should be placed in a body bag. The sealed bag should then be placed in a second bag, the outer surface of which should be cleaned with 0.5% bleach solution (The 1:10 solution normally used for routine disinfection). The double-containerized bodies may then be taken directly to, and stored in the refrigerated truck placed on site for body storage prior to release, or treated as below.
2. If air transport will be required, the double-bagged body should be placed in a Ziegler case and Ziegler Casket (not in the SCMEO inventory) and the lids affixed using a continuous bead of silicon sealant and screws. If cremation is required, the double-bagged body may be placed in a sealed zinc coffin (not in the SCMEO inventory) and a surrounding wood casket; both will burn at cremation temperatures.
3. In general, with infectious bioterrorism agents, embalming should not be performed. It poses unnecessary risk to workers and can retard the decomposition process, which may facilitate the elimination of infectious agents of concern. Further, embalming can cause agents that were formerly on the inside of the body to resurface on the exterior of the body or associated

surfaces. Some embalming chemicals may adversely react with bleach, posing hazards to workers.

4. It may not be feasible for each body to be tested to ensure effective decontamination before it is released. It may be more practical to monitor levels of chemicals or radiation in the general area where bodies are stored prior to release, and immediately outside the storage area(s). Measuring of biologic agents, of course, is not feasible at present.
5. The Medical Examiner/Coroner should do what he/she can to return remains for disposition at the family's direction. However, if decontamination has not brought hazards to a safe level, it may be necessary to retain the body or, under some circumstances, request voluntary cremation or impose mandatory cremation after appropriate involvement of public health and safety officials. Virtually all chemical or biological agents are effectively mitigated at cremation temperatures above 1000 degrees F. Cremation, however, does not affect radioactive material and to protect the crematorium and area, radioactive remains should not be cremated. Bodies contaminated with highly infectious agents (e.g., smallpox, hemorrhagic fever viruses) or spore-producing Bacillus anthracis should be cremated. Bodies infected with other types of infectious bioterrorism agents can be directly buried.
6. In general, the basic procedure at most stages of processing are:
   a. Preliminary examination;
   b. Decontamination;
   c. Detailed examination;
   d. Packaging or containerizing; and
   e. Decontamination of package or container exterior surfaces

## 4.21 Removal and Disposition of Hazardous Materials

1. The main items that will need to be disposed of include:
   a. Used body bags;
   b. Collected runoff at decontamination area;
   c. Used personal protective equipment; and
   d. Used cleaning utensils.

2. Place used body bags and used protective equipment and cleaning materials in approved receptacles that can be transported by authorized and licensed hazardous waste management companies. Incineration in approved incinerators is a reasonable method of disposal, although the plastic elements of body bags may produce toxic by-products into the air that will need to be controlled and appropriately managed.
3. Incineration is reported to be capable of aerosolizing anthrax spores and, where anthrax spores are involved, an approved afterburner may be required to avoid aerosolization.
4. Runoff from the decontamination area needs to be collected by authorized and licensed hazardous waste management agencies and disposed of using methods and locations that are compliant with state law, Environmental Protection Agency (EPA) regulations, CDC's Agency for Toxic Substances and

Disease Registry (ATSDR) recommendations, and department of transportation regulations regarding the vehicles used for transport.

## 4.22 Radioactive Issues

1. Immediate deaths from a nuclear weapon will probably result from blast injury. However, fallout can cause acute radiation syndrome after many hours or days. Radioactive fallout decays very rapidly—to about 10% of original levels in 8 hours and 1% after 2 days.
2. "Dirty bombs" contain radioactive material combined with explosives that would contaminate surfaces but should be amenable to washing and decontamination. People who die quickly following an explosion with radioactive material would not be expected to harbor significant radiation internally. Dirty bombs may also produce radioactive shrapnel in the body and can pose hazards. Shrapnel needs to be identified and removed using instruments other than the hands.
3. Radiation levels should be measured on the ground because detection by air can miss hot spots. Bodies and clothing should be washed using the usual procedures and the containers should be marked as radioactive. After decontamination, bodies and clothing should be checked with a meter to ensure that decontamination was successful. More than one treatment may be required.
4. Radioactivity warning tags should be applied to remains or items that are radioactive. A radioactivity report may need to be attached to, and accompany the remains.
5. Guidelines for the handling of decedents contaminated with radioactive materials. In brief, key elements are:
    a. Purchasing, maintaining, and calibrating radiation survey equipment is probably not feasible for most Medical Examiner or Coroners' offices. Advance arrangements need to be made with a local nuclear facility, hospital nuclear medicine department, or state radiation control director to develop plans for equipment and survey response to an incident involving radioactivity.
    b. When dosimeters are used to check exposure, they should be read when starting exposure, worn in an area that is not covered or concealed by clothing, and be read at the end of the work assignment. It may be helpful to put a single contact person in charge for monitoring dosimeter usage, reading, and documentation of exposure. Protective wear should be removed and left at the area.
    c. When the scene is first evaluated, radiation should be surveyed and plotted on a map of the area so workers know where the hotter areas are. When not directly engaged in work, workers should migrate to the area with the lowest radiation. It might be possible to use a video camera and have the radiation levels be verbally recorded as the scene is processed. The tape could then be used outside the hot area to construct the scene map so workers know where the hot areas are.

d. More likely, a radiologic dispersal device (RDD or "dirty bomb") would be involved and would require decontamination of external aspects of the body
e. Radioactive shrapnel from a dirty bomb probably poses the greatest risk. Bodies need to be surveyed for radioactivity and x-rayed so that any identified shrapnel can be removed (with forceps, not the hands) even if an autopsy is not performed and before release of the body. A radioactivity meter may be needed to locate small fragments which may not show up on x-ray.
f. In the rare event that persons inhale or ingest radioactive materials (as may occur with a nuclear bomb) and develop radiation sickness, there is little risk of dangerous levels of radioactivity with casual exposure to the external aspects of the body, but the interior of the body may pose hazards from handling organs and tissues, albeit it probably low risk in most cases if shrapnel has been removed. Thus, autopsy is not recommended unless absolutely necessary. This is a question of risk versus benefit.
g. Stay times near radioactive remains must be calculated by determining radioactivity dose rates in mrem/hour and using 200 mrem per worker as a practical exposure limit, although 5 rem is the legal limit. Use the highest radiation count in the work area (derived from the map) to make such calculations, and set the limit as low as possible without hampering the work effort.
h. Actual exposure should be measured with dosimeters worn by staff
i. A Geiger Mueller pancake probe can be used to conduct initial surveys of the radioactivity of decedents, and counts in excess of 300 per minute above background should result in labeling as radioactive
j. Bodies causing a pancake probe reading of more than 100 mrem/hour should be stored in a refrigerated area at least 10 meters removed from workers until plans can be made to handle such bodies
k. If radioactive shrapnel is present it should be removed with forceps to minimize exposure to the hands
l. BioSeal (not in the SCMEO inventory) or Ziegler cases (not in the SCMEO inventory) will prevent release of radioactive material into the environment.

## 4.23 Other Considerations

1. *Temporary interment*. If, for some reason, bodies cannot be transported from the incident site in a timely manner and there is no suitable place to store bodies, the bodies may be bagged and temporarily interred on site until transport can be accomplished. See Mass Burial Policy.
2. *Special agents*. Cholera, TB, plague, smallpox, yellow fever, viral hemorrhagic fevers, and diphtheria may bring into play special quarantine or detention procedures mandated by public health authorities. If such bodies are brought into the United States from elsewhere, the Code of Federal regulations require

either: embalming and placement in a sealed casket; cremation; or a permit issued by the Centers for Disease Control and Prevention.

3. *Cremation recommended in smallpox cases*. Because smallpox virus can survive in buried bodies in lesions, cremation is recommended in such cases.
4. *Recommendation for no autopsy*. In cases of viral hemorrhagic fevers it has been recommended that an autopsy not be performed unless needed to establish the diagnosis in an index case, and that experts at the CDC should be consulted before an autopsy is performed. Although there is not uniform agreement regarding cases of anthrax or smallpox, vaccination of workers would allow autopsies of smallpox cases to be performed, when needed, and appropriate PPE should abate major risks when autopsies are performed in cases of anthrax.
5. *Recommendation for NO embalming*. Although embalming does provide some advantages-- allowing bodies to be kept without refrigeration up to three weeks, for example-- in general, embalming is not required. Embalming should not be performed on remains that contain residual hypochlorite due to the potential for generation of dangerous gases when mixed with embalming fluid.

# SECTION 5.0

# Mass Burial

## 5.1 General

1. Rapid mass burial of victims is not justified on public health grounds. Rushing to dispose of bodies without proper identification traumatizes families and communities and may have serious legal consequences (i.e., the inability to recover and identify remains).

2. Mass burial may become necessary when:
   d. Temporary burials may be necessary when remains cannot be adequately refrigerated or embalmed to allow for the possibility of future forensic investigation and identification.
   e. Biological, chemical, and/or radiological contamination of the remains poses a severe threat to public health.
   f. All public and private health and mortuary capacities are overwhelmed, unable to manage the numbers of, remains, and the remains become a public health risk.

3. Any decision to begin mass burial must be made at the highest levels of state government. Such direction will be essential before an effort can be initiated for the public health, safety, and welfare.
4. The agreed-upon location of any mass burial site must consider the number of remains for burial, distances, and transportation considerations.
   a. An existing cemetery would be the ideal and most logical location for any mass burial.
   b. Federal, state, county, or city-owned property or right-of-ways would be a secondary choice.
   c. Alternate consideration could be given to private property, preferably large open fields or similar sites.

5. Burial site access and egress routes and the type of terrain are important considerations for future exhumations of the remains. Exhumations may be ordered at a later time in an attempt to identify and return remains to families.

## 5.2 Process for Mass Burial by Mortuary Personnel

1. Those remains designated for mass burial should be processed to ensure the following:
   a. All bodies *have* been rechecked for any type of jewelry or other items that may lead to identity.
   b. Photographs *have* been taken and postmortem information has been properly documented, especially in the areas of scars, tattoos, deformities, and other physical descriptions.

c. Fingerprints *have* been taken; and if not, fingers are rechecked for possible prints to be taken.
d. Metal body tags *have* been filled out and attached to each body.
e. Bodies are wrapped in plastic sheeting or disaster pouches and tied/zipped to deter leaking.
f. An additional tag containing the body number has been attached to each pouch/wrapper.
g. If possible, bodies *have* been placed in separate wood or metal containers for burial, and the containers are marked with the corresponding identification numbers.

2. The exact location of each body buried must be recorded on a grid map and other pertinent information including date, and time of burial should be recorded to allow for orderly exhumations at a later time.
3. Each burial site may also be marked (staked) with the correct corresponding "Doe" numbers.
4. If possible, all burials should be under the direction of the ME.

# SECTION 6
# Pandemic Influenza Plan

## 6.1 Purpose

To provide effective and coordinated response to a pandemic influenza or other infectious disease involving mass fatalities occurring within Snohomish County.

## 6.2 Definition

Pandemic influenza refers to a world-wide epidemic involving the spread of an influenza virus to which few if any human beings have previously been exposed. Because of this, a pandemic influenza has the potential to cause increased levels of serious illness and death in a very short period of time. In the event of a pandemic influenza, hospitals and funeral homes may not have the capacity to store and properly manage the bodies of the deceased.

Impact of pandemic influenza on the community:

1. From 25-35% of the workforce could be affected at any given time
2. The epidemic could persist for two months or longer
3. Psychological impacts on the workforce may be extreme
4. Community containment measures, such as closing schools and other establishments and canceling events, may be implemented to minimize disease spread.
5. It is expected that death rates will increase and at peak periods, the capacity of funeral homes and hospital morgues to care for the dead and their families will be exceeded.
6. Hospitals, nursing homes, funeral homes and the SCME may quickly fill to capacity.

## 6.3 Snohomish County Pandemic Influenza Plan

1. The Snohomish County response to a pandemic influenza is outlined in the Snohomish County Health Care Response to Pandemic Influenza (Implementation Plan 4D – Pandemic Influenza Response), prepared by the Snohomish County Health District in November 2007 and updated: June 20, 2008. (This document is maintained in the SCME library.)
2. Medical Examiner's Office is an integral element of the overall Snohomish County Health Care Response to Pandemic Influenza.

## 6.4 Excerpts from the Snohomish County Plan for Coordination and Communication

1. Coordination of Care and Logistics: The four-tier disaster medical care system is coordinated and managed using the Incident Command System. An Incident Command Post (ICP) will be established and will work in close coordination with the Snohomish County Emergency Operations Center (EOC) and the Department of Emergency Management (DEM), which will become activated according to the county's Comprehensive Emergency Management Plan (CEMP). The Health Officer or his designee is the incident commander working closely with a crisis team of representatives from major hospitals and clinics, Emergency Medical Services (EMS), Department of Emergency Management (DEM), and other key stakeholders.

2. Communication:
    a. During a pandemic, two streams of communication are critical to and from the public and to and from providers.
    b. It is also critical that communication systems are redundant and consistent. Key components of the communication system are:
        i. A Joint Information Center (JIC), that will be established when multiple facilities or jurisdictions become involved in the incident. The JIC will be the coordinating mechanism for all educational information to the public. All health messages will either come through the Health District, State Department of Health, or Federal government or, when activated, through Emergency Support Function 15 (ESF 15, Public Information) in the Snohomish County EOC.
        ii. A Call Center providing a single number where members of the public can call for information or for triage of influenza-like symptoms.
        iii. The Snohomish Health District website, which is a source of information for the public, and through a secure provider-only portion of the site, for hospitals, clinics, and other health care providers.

## 6.5 SCME Management of Fatalities

1. The SCME leads the mass fatality response efforts
    a. Collects and reviews death data where cause of death is listed as influenza, pneumonia or other respiratory infection. This data is collected daily and entered into METS.
    b. Coordinate data collection with the Health District Division of Vital Statistics and the CDC.

c. Reviews apparent influenza related deaths that occur outside of hospitals and without an attending physician.
d. Coordinates with neighboring jurisdictions.

## 6.6 Notification of Death

1. The responsibility of notification of death is dependent upon the location of the death.
    a. If the death is due to natural causes and occurs in the hospital, nursing home or hospice, the care provider is responsible for notifying the Medical Examiner's Office of the death and for locating next of kin.

    b. If the death occurs in a private home or other location the reporting party shall call 9-1-1 to report the death. The Medical Examiner Office may or may not assume jurisdiction. The body shall be maintained undisturbed until authorized for release by the SCME.

## 6.7 Snohomish County Medical Examiner Office (SCME) responsibilities:

1. Directs the county-wide response to mass fatality event
    a. Establish communications with the command post and integrate SCME response into the County response.
    b. Coordinate with the hospitals and funeral homes regarding the management of fatalities during a pandemic mass fatalities response
    c. Maintains legal authority over the identification and documentation of deaths of SCME jurisdiction.
    d. May or may not require additional examination into cause and matter of death

2. Maintains legal authority governing the identification, transportation and final disposition of human remains during mass fatalities events

    a. Assigns a case number, for each reported death.
    b. Assumes jurisdiction if any one of the following is true:
        i. Sudden death without a known natural cause and without medical attendance within thirty-six (36) hours preceding death.
        ii. Death caused entirely or in part by unnatural or unlawful means
        iii. Death occurred within one year following an injury/accident even if the accident is not thought to have contributed to the cause of death.
        iv. Death occurred while in custody of law enforcement, or other non-medical public institutions.
        v. Death due to, or contributed to, by any type of injury or physical trauma.

3. Special issues relating to Jurisdiction over pandemic influenza deaths

    a. Pandemic influenza is a highly infectious communicable disease, which is falls under the jurisdiction of the SCME per state law RCW 68.50.
    b. Pandemic influenza is also a natural disease occurring under natural circumstances provided terrorism is excluded. The SCME does not normally assert jurisdiction for deaths by natural disease; certification of death by natural disease lies within the authority of the decedent's medical care provider.

    c. The SCME may assume jurisdiction over deaths due to natural disease by pandemic influenza in the following situations:

        i. To confirm by culture of blood and tissues a death that meets the criteria for an emerging infectious disease.
        ii. To confirm by culture of blood and tissues a death in a poultry or swine worker where illness is suspected as influenza.
        iii. Any influenza-like death of a family member of a poultry or swine worker
        iv. A death of a traveler who has traveled in an area that placed him/her at risk for influenza.
        v. To confirm suspected cases of pandemic influenza to establish by culture the presence and prevalence of the disease in Snohomish County.
        vi. Decedents who have no attending or treating physicians to certify the death.
        vii. Unclaimed or indigent decedents.

    d. After Snohomish Health District has made a determination that the pandemic is started in Snohomish County, the Chief Medical Examiner may make a determination that continuing to assume jurisdiction over presumed pandemic influenza deaths may not be necessary beyond confirmation of presence of pandemic influenza and for the above items i - v.

## 6.8 Maintenance of essential business functions and emergency response.

1. Estimate personnel needs and work with DEM to locate, screen, certify and active auxiliary personnel to assist in the SCME response.
2. Coordinate and oversee assignment and management of auxiliary personnel to ensure the provision of specific directions (what the ME wants them to do and what they are not to do), logging, tracking and accounting for their assignments.
3. Maintain inventory of emergency response supplies in an organized and accessible location for immediate access.

4. Develop and implement an answering service or electronic death reporting system for certified agency death reports to facilitate the reporting and data entry of natural deaths of no jurisdiction.
5. Work with The Department of Facilities Management to select sites for Temporary Morgues. The temporary morgues can be used as holding areas until the bodies are examined, identified and released or until the examination center is prepared to receive additional bodies.
6. Select Family Assistance Center site(s). Preferably, with assistance from the Department of Information services a virtual Family Assistance site can be established.
7. Reference the attached planning grid titled: "Pandemic Influenza planning -- Critical Infrastructure and Essential Services." Appendix A

I. Protection and Support of Workforce

1. All SCME staff are needed for the performance of the organization's mission-essential functions and are considered essential personnel in the event of a pandemic influenza response.
2. Each employee is responsible for staying healthy and for protecting and preparing their family for pandemic influenza.
   a. Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
   b. Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.
   c. Try to avoid close contact with sick people.
   d. Avoid touching your eyes, nose or mouth and further spread the virus.
   e. See Appendix B for CDC published documents for personal and family protection and preparedness...
   f. Essential workers and their families are likely to face substantial physical, personal, social, mental and emotional challenges as long as the pandemic continues. SCME personnel and their families should make full use of the County provided Employee Assistance Program (EAP): Wellspring Family Services which is available 24 hours a day at www.wellspringeap.com or 1-800-553-7798.

Reference: Snohomish County Health Care Response to Pandemic Influenza (Implementation Plan 4D – Pandemic Influenza Response), prepared by the Snohomish County Health District in November 2007 and updated: June 20, 2008.

6. *Anthrax spores*. Anthrax requires oxygen to sporulate. Spores do not form inside of a closed corpse. The major risk occurs if body fluids are exposed to air. Thus, proper disinfection is required of working surfaces when autopsy is performed. Autopsy tools used in an anthrax case should be autoclaved or incinerated.
7. *Body bags and containment material*. BioSeal ™ (not in the SCMEO inventory) containment material is reportedly effective for containment of all known hazardous substances, vapors, fluids, gases, and powders. It may be used as needed to enclose bodies or other items such as clothing. Type II and Type IIA body bags are made of special material to contain hazardous substances and prevent leakage. These types of bags should be used, when indicated.
8. *Marking of containers and coffins*. Once examination is complete and bodies are identified and containerized, the exterior of the container or coffin should be marked indelibly to indicate case number, decedent name, social security number, and date of birth.
9. *Policy of not reopening*. Once bodies are finally containerized for final disposition, the containers should not be reopened to view the body or further prepare the body for burial or funeral service purposes. When possible, facial photographs of the deceased should be provided to funeral directors to affirm to the next of kin that the correct body has been provided. When this is not possible, other distinct identifying information should be provided.
10. *Coffin preparation*. During final casketing, formaldehyde, sawdust, and/or tow may be placed around the body bag inside of the impermeable casket if possible interactions with hypochlorite have been eliminated.
11. *Other disinfectants*. Other potentially useful disinfectants exists but can be dangerous and pose respiratory risks. They should be used only in controlled settings with adequate ventilation and protective equipment.
12. *Organ Donation*. Being the victim of a chemical or radiologic event does not necessarily preclude the availability of organs or tissues for transplantation purposes. If someone survives a chemical poisoning for a period of time the agent may no longer be present. Biologic agents may well preclude the use of organs or tissues for such purposes. Decisions will need to be made depending on the type of agent and in consultation with appropriate experts. Most likely, the time required for decontamination and processing, however, will preclude the procurement of tissue within allowable time frames.
13. *Animal remains*. Contaminated remains of small animals may be containerized in metal containers or drums. Processing of such remains will need to be coordinated after consultation with the FBI, Health Department, and veterinary consultants.
14. *Informing families*. Family members should be provided with prompt information that includes description of what remains and effects the family will likely receive and how long it may take. Advance explanation for anticipated delays should also be provided.

15. *Fragmented Remains.* Except for a dirty bomb, a situation with fragmented remains or body parts that will require decontamination seems unlikely. In certain circumstances, however, it may be necessary to decontaminate fragmented remains. In these situations, care should be taken to avoid the use of chemicals that would jeopardize the quality of DNA samples. The laboratory personnel assigned to process the DNA should be consulted before any chemicals are applied to fragmented remains. Chemicals applied to the remains for purposes other than decontamination, such as insect repellants, should also be avoided unless approval for their use is granted by the DNA laboratory personnel.
16. *Interment.* It may be necessary to inter bodies temporarily to preserve them if an incident has occurred in a location that makes safe storage or transport of bodies difficult. In other instances, such as those with very large numbers of fatalities or fragmented remains, it may be necessary to have a mass interment (or cremation) that is essentially permanent. Such decisions will need to be made by the incident commander in conjunction with appropriate authorities and must take into account public health, political, and cultural considerations.